DOCUMENT RESUME

ED 180 521 JC 790 657

AUTHOR	Walker, Noojin, Ed.: And Others
TITLE	The Identification and Evaluation of Job Entry Competencies.
INSTITUTION	Pensacola Junior Coll., Fla.
SPONS AGENCY	Florida State Dept. of Education, Tallahassee. Div. of Community Colleges.: Florida State Dept. of Education, Tallahassee. Div. of Vocational Education.
PUB DATE	79
NOTE	367p.: Best copy available
EDRS PRICE	MF01/PC15 Plus Postage.
DESCRIPTORS	*Behavioral Objectives: Community Colleges: *Course Objectives: Employer Attitudes: Evaluation Criteria: Job Analysis: Job Skills: *Junior Colleges: *Performance Based Education: Personnel Evaluation: Technical Education: Trade and Industrial Education: *Vocational Education

ABSTRACT

The identification and evaluation of job-entry competencies was the final portion of a long-term project designed to develop certain vocational programs as competency-based education (CBE). Employers took part in several phases of the project, including identifying expected job performances, defining needed competencies and expected levels, developing performance evaluation criteria, and establishing evaluation methods. The project report lists the individuals involved, discusses the objectives and development of the project, and gives an overview of CBE. For each of the vocational programs involved, the following are provided: (1) a general description of the program: (2) a list of core and related courses: (3) major learning outcomes expected: (4) specific learning outcomes for each course: (5) forms used to evaluate the competencies of students by employers, instructors, or the students themselves: and (6) checklists used by employers to identify desired competencies. The vocational programs outlined in this way are: Automechanics, Child Care, Early Childhood Education, Cosmetology, Dental Hygiene, Electronics, Executive Secretary, Fashion Merchandising, General Clerical, Legal Secretary, Medical Secretary, Office Management, Stenographic Secretary, Major Appliance Servicing, Air Conditioning and Heating, Industrial Electricity, and Welding. Competencies are also specified for mathematics, communications skills, occupational safety, and customer and industrial relations. (AYC)

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THE IDENTIFICATION AND EVALUATION OF JOB ENTRY COMPETENCIES
1979

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
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This project was funded by
The Division of Vocational Education, and
The Division of Community Colleges
Florida State Department of Education
Project No. 9-2E21

The Pensacola Junior College
Pensacola, Florida 32504

An Equal Opportunity Institution

JC 790 657

PROJECT MEMBERSHIP

Glen Bevis	Electronics
John Burns	Industrial Electricity
Charles Colgan	General Secretarial
Patricia Cottrell	Fashion Merchandising
Homer Gaouette	Safety
Dr. Margaret Heath	Communications Skills
Art Hyland	Automotive Mechanics
Paul Inacio	Welding
Dr. Virginia Lees	Customer Relations
Sister Mary Leonard	Business Communications
Patrick Losee	Appliance Servicing
Stan Lowery	Heating/Air Conditioning
Janet Martin	Stenography
Judith Resch	Executive Secretary
Jean Ross	Office Management
Dr. Mickey Settle	Mathematics
Dr. Margaret Sielski	Industrial Relations
Dr. Ann Southerland	Child Care/Early Childhood
Diane Sutton	Medical Secretary
Patricia Trachy	Stenography
Muriel Warren	Legal Secretary
Katie Yates	Cosmetology
Joan Ziel	Dental Hygiene
Dr. Richard Bedics	Project Coordinator
Dr. Eugene Gentzel	Associate

PROJECT OBJECTIVES

The Identification and Evaluation of Job Entry Competencies was the final portion of a long-term project designed to develop certain vocational programs as competency-based education (CBE). The consensus was that CBE would bring to the instructional program a higher degree of efficiency and effectiveness than had been experienced previously at Pensacola Junior College.

The total project consisted of three major phases. Phase One consisted of the development within the faculty of a fluency in the identification and evaluation of behavioral objectives. Syllabi for all courses were reconstructed in behavioral terms.

The second phase dealt with the identification of the prerequisite competencies students would need if they were to succeed in the program. Basic communication and computation skills were identified, and evaluation criteria were defined. Additional skills in the cognitive, psychomotor, and affective domain were also identified. The product of this second phase was reported in *A Report for the Entry-Level Project for Selected Vocational Programs, 1978-79*.

The third phase focused on the competencies the employer expects of a job-entry person. The competencies were not limited to the occupational skills, per se, but included related education--communication skills, computational skills, safety, and human relations as either customer relations or industrial relations. Evaluation criterion and follow-up activities were developed for each.

Structurally, the total project was based on seven specific tasks:

Task 1 To develop behaviorally stated objectives for all courses.

Objective (a) To obtain behaviorally stated course objectives.

(b) To have the faculty learn how to develop behavioral objectives.

Task 2 To develop evaluation instruments to measure the attainment of the behavioral objectives.

Objective (a) To obtain evaluation instruments.

(b) To have the faculty learn how to develop evaluation methodologies compatible with the objectives.

Task 3 To change from "intuitively deducted" objectives to objectives based on needed competencies.

Objective. To learn how to define needed competencies

Task 4 To establish prerequisite competencies for entry into programs using skills acquired in tasks 1 and 3.

Objective. To define the minimum competency level required for a reasonable expectation of success in the program.

Task 5 To identify and define competencies expected by an employer using skills acquired in tasks 1 and 3.

Objective (a) To learn how to identify needed competencies.

(b) To define the competencies.

Task 6 To develop evaluation techniques to measure the obtained competency level using skills acquired in Task 2.

Objective To develop specific evaluation techniques and materials with an emphasis upon an ease of utilization.

Task 7 To develop a system of follow-up as the final portion of the evaluation scheme.

Objective (a) To put into operation an evaluation of the graduate's performance at the job site.

(b) To develop an evaluation which will function within the constraints of practical manageability and economic impact.

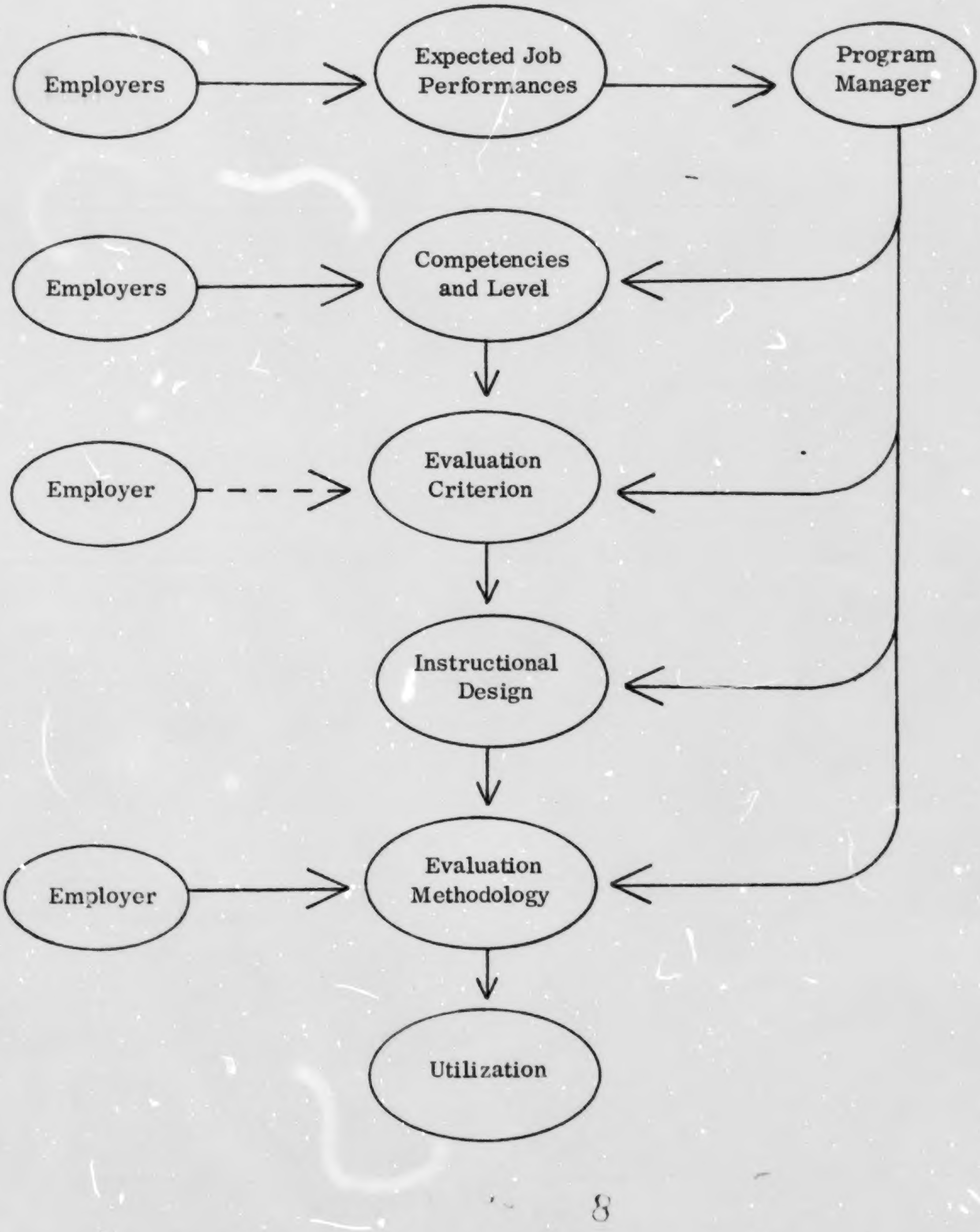
The seven tasks utilized a spiral approach with each task being revisited as the teachers' competence in CBE developed. An important part of the process was a constant review and evaluation of CBE programs under development nationwide, and the participation in the Council for the Advancement of Experiental Learning (CAEL) workshops. Materials, located and made available by the Florida Education Information System (FEIS) of the State Department of Education, were invaluable.

An absolutely essential component of the identification and definition of competencies was the input from potential employers. Every occupational program at Pensacola Junior College had an advisory committee comprised of employers within the district. The advisory committee communicated with the department head and program manager to identify the performances expected of the entrant into the job. As the program objectives solidified, the advisory committee reviewed the development of the evaluation design and materials. The control of the program and the final decisions regarding content and structure remained with the department head. The Project Design Flow Chart pictures the developmental sequence of Phase Three of the total project.

The results of the project have proven to be highly beneficial at Pensacola Junior College. We do not propose that these program competencies are directly applicable, in total, to other schools' programs, because each school's program should be based upon its local employers' needs and expectations. But, we do endorse the methods by which the competencies were identified and evaluated. Furthermore, we hope that the materials contained in this document will serve as a guide for those who are interested in converting their own programs to competency-based education.

Noojin Walker
Vice President for Academic Affairs
Pensacola Junior College

PROJECT DESIGN
FLOW CHART


Employers
Expected Job Performances
Program Manager
Employers
Competencies and Level
Employer
Evaluation Criterion
Instructional Design
Employer
Evaluation Methodology
Utilization

8

COMPETENCY-BASED EDUCATION: AN OVERVIEW

"Competency-based education is education that focuses on the outcomes of the formal educational process so that those outcomes are defined, agreed upon, and publicly stated in terms of assessable student behaviors. Appropriate assessment instruments and processes are developed and learning experiences designed to assist students in gaining the required competencies are offered.

"This understanding of competency-based education does not include the specification of any particular teaching mode or strategy, and/or special curriculum. It does require that a consensus be reached on the expectations for students which are to result from educational experiences and that the expectations be stated in terms of assessable behaviors."[1]

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[1] O'Connell, W. R., Improving Undergraduate Education in the South, SREB: Atlanta, 1979.

Competence is defined as

..Behavior integrated with knowledge

Competence is stated in terms of

..A general ability necessary to the effective functioning of a professional

Competence is demonstrated by

..Observable behaviors/performances

..Past experiences which sufficiently indicate ability in a given area

.."Products" developed

..Documentation by former/present colleagues, teachers, employers, associates, etc.

Competence is measured by

..Designing a performance situation where behaviors can be viewed

..Establishing criteria which differentiate a competent performance from a less-than-competent performance

DEFINITIONS

In developing a method for characterizing the various roles, tasks, and responsibilities associated with community college personnel, we need to establish a common vocabulary. Although the terms and definitions listed below may well be identified using other equally acceptable words, let's agree upon the following:

POSITION/JOB: The overall category into which one's duties are classified. Counselor, teacher, provost, and lifeguard are examples of positions.

FUNCTIONS: The roles a person in a certain position is expected to take on; the specific components of a position which an individual institution or employer identifies as essential elements of that position. For example, in one institution to fill the position of faculty member one may need to function both as a classroom teacher and as an academic advisor. A lifeguard in a particular county may need to perform the functions of lifesaving, teaching swimming, and clearing the beach.

COMPETENCIES: The characteristics or abilities one needs to perform the function(s) effectively. To be competent, one must integrate knowledge with behavior. For example to be a competent classroom teacher, one must not only know learning theory, one must also be able to apply this theory to specific situations. To be a competent lawyer, one must not only know the law, one must also be able to interpret and communicate it in specific situations.

COMPETENCY STATEMENTS: Statements identifying the general abilities one needs to function effectively as a professional. These statements identify both what one must know and what one must demonstrate. For example, to function effectively as a lifeguard, one may need to be competent at working/communicating with people in many age groups. The general competency is interpersonal communication. The competency statement, when applied to the behavior and knowledge requirements of a lifeguard is: "He/She must demonstrate that he can communicate (behavior) rules and regulations (knowledge) of the beach to people in a friendly yet effective manner (more behavior)." Just as some functions are identified as the roles of a position in some institutions but not in others, some competencies associated with a given function may not always and everywhere be necessary to carrying out that function effectively.

CRITERIA: Those specific tasks, abilities, attitudes, and knowledge bases by which one identifies the "job well done." Criteria get closer to the evidence upon which judgments and evaluations are made than do competency statements, functions, or positions. If a judgment of competency is based on several criteria, it is simply easier to verify and reach consensus about competency. Some of the criteria for demonstrating competency in problem solving might be:

1. Identifies the cause of the problem
2. Finds alternate solutions
3. Evaluates plan for implementation

What becomes apparent is that this process of becoming increasingly more specific could go on ad infinitum. For the lifeguard, one criterion to demonstrate competence in swimming may be "swims against currents in adverse conditions." One could then ask for criteria for swimming against currents. However, while this may be important to cite for the novice swimmer, it is not necessary for the professional. The attempt is not to get so detailed as to lose sight of the overall position and function within which competent behavior is expected, but rather to move somewhere in between abstract generalities like, "She'd make a great secretary" and over-simplified specifics like, "She sharpens her pencils in 5 seconds flat."

PROGRAM:	AUTOMECHANICS
PROGRAM MANAGER:	ARTHUR W. HYLAND, JR. DEPARTMENT OF TRANSPORTATION MECHANICS PENSACOLA JUNIOR COLLEGE

Automechanics is a one-year program. The graduate receives a Certificate of Occupational Competency and may move immediately into employment, or may continue for two more terms and receive an Associate of Science in Automechanics.

The program graduate is trained to diagnose and repair the various automotive systems. He/she is knowledgeable of the operational theory of the various components and systems, and is trained in the techniques and methods of self-learning to keep pace with the changing technologies.

The graduate may begin employment as a

Service Advisor, Garage
Parts Counter Salesperson
Automotive Mechanic
Automobile Mechanic Apprentice
Air Conditioning Mechanic
Automotive Technician, Exhaust Emissions
Brake Repairer
Fuel System Mechanic
Transmission Mechanic
Tune-Up Mechanic
Squeak, Rattle, and Leak Repairer
Mechanical Unit Repairer
Automobile Mechanic Helper
Electrical Unit Repairer
Repairer, Heavy
New Car Preparation Mechanic
Used Car Renovator
Automotive Machinist--Apprentice
Automotive Machinist--Helper

AUTOMOTIVE MECHANICS (DOMESTIC CARS) CERTIFICATE-A.S

Term I

AUM 0101 Engine Lab	2 cr.
AUM 0102 Power Train Lab	2
ENC 0101 English	3
AUM 0103 Engine Theory	4
AUM 0104 Power Train	3
OCS 0101 Safety	2

Term II

AUM 0105 Engines	3 cr.
AUM 0106 Engine Lab	1
MAP 0101 Applied Math	5
AUM 0107 Electrical Systems	3
AUM 0108 Electrical Systems Lab	1
AUM 0109 Alignment Theory	3
AUM 0110 Alignment Lab	2

Term III

AUM 0111 Service Theory	3 cr.
AUM 0112 Service Lab	2
AUM 0113 A.C. and Heating	3
PHY 0101 Physics	5
AUM 0114 A.C. and Heating Lab	1
CUS 0101 Customer Service	3

****

AUTOMOTIVE MECHANICS (IMPORT CARS) CERTIFICATE-A.S.

Term I

AMI 0101 F.C. Engine Theory	4 cr.
AMI 0102 F.C. Engine Lab	2
AMI 0103 F.C. Power Train Th	3
AMI 0104 F.C. Power Train Lab	2
ENG 0101 Communication Skills	3
OCS 0101 Occupational Safety	2

Term II

AMI 0116 Import Diesel Engine Th	3 cr.
AMI 0114 Import Auto Tune-Up	3
AMI 0107 Suspension Systems	3
AMI 0108 Suspension System Lab	2
AMI 0115 Import Auto Tune-Up Lab	2
MAP 0101 Applied Math	5

Term III

AMI 0110 F.C. Heating and Air Conditioning Theory	3 cr.
AMI 0111 F.C. Heating and Air Conditioning Lab	2
CUS 0101 Customer Services	3
AMI 0112 F.C. Service Operations	3
AMI 0113 F.C. Troubleshooting Lab	2
PHY 0101 Applied Physics I	5

RELATED EDUCATION

Related education is a core consisting of five separate course areas:

ENC 0101	Communication Skills
MAP 0101	Applied Mathematics
OCS 0101	Occupational Safety
CUR 0201	Customer Relations
INR 0102	Industrial Relations

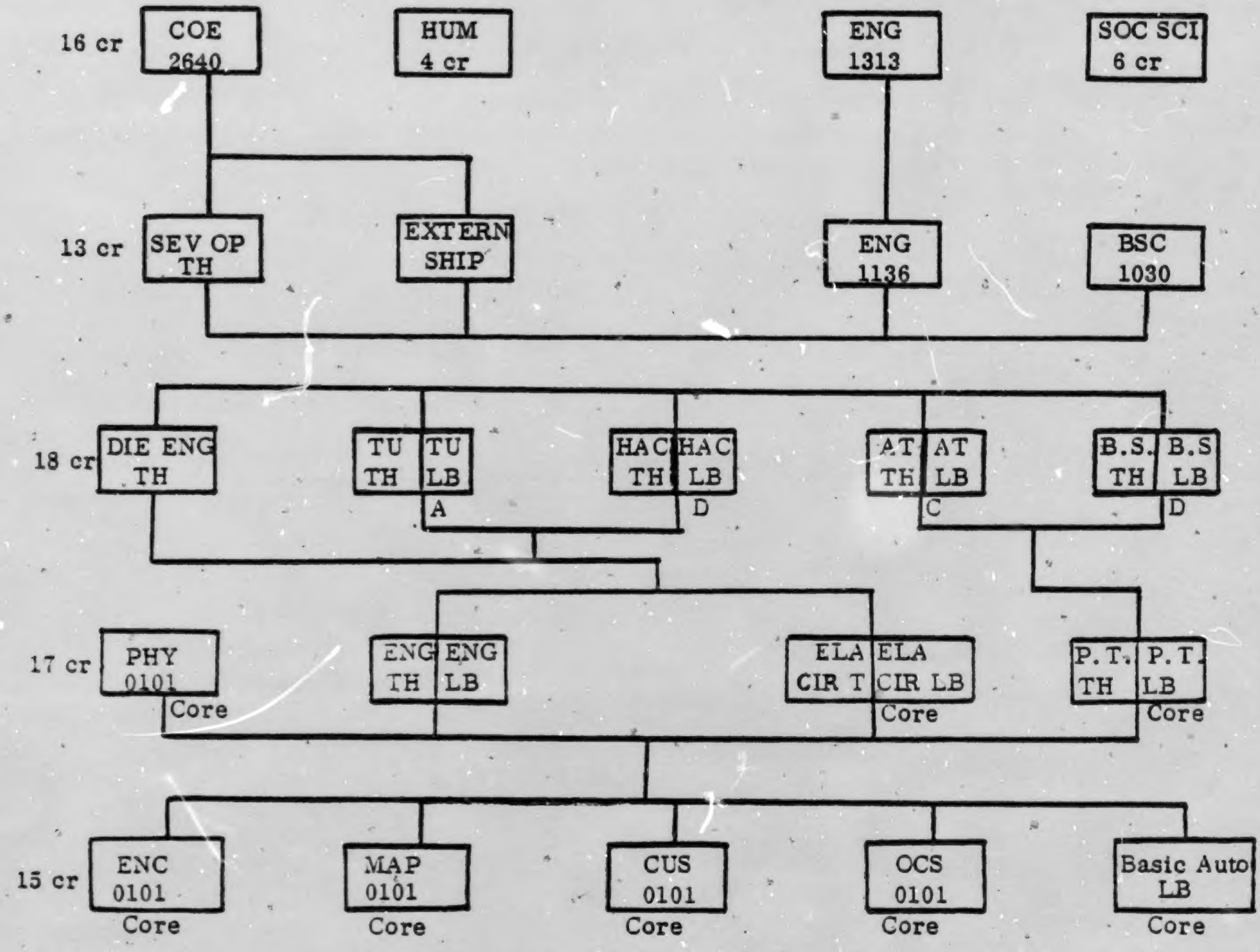
This program includes the communications, mathematics, and safety. And because the graduate will be working in an industrial setting, the fourth component of the program is Customer Relations.

All five of these areas are to be found in the section marked "Related Education."

AUTOMOTIVE MECHANICS

CERTIFICATE // A.S.

A Plausible Solution


16 cr
COE 2640
HUM 4 cr
ENG 1313
SOC SCI 6 cr
13 cr
SEV OP TH
EXTERN SHIP
ENG 1136
BSC 1030
18 cr
DIE ENG TH
TU TH
TU LB
A
HAC TH
HAC LB
D
AT TH
AT LB
C
B.S. TH
B.S LB
D
17 cr
PHY 0101
Core
ENG TH
ENG LB
ELA CIR T
ELA CIR LB
Core
P.T. TH
P.T. LB
Core
15 cr
ENC 0101
Core
MAP 0101
Core
CUS 0101
Core
OCS 0101
Core
Basic Auto LB
Core

Automotive Mechanics

Program Major Learning Outcome at Certificate Level

1. Placed in a real shop situation, the student will be able to diagnose the cause of a failure to any given system of the modern automobile under supervision with 100 percent accuracy.

2. Placed in a real shop situation, the student will be able to repair a failure to any given system of the modern automobile under supervision with 100 per cent accuracy.

3. Placed in a real shop situation, the student will, orally and in written form, be able to communicate the tasks and duties he has performed in the accomplishment of outcomes one (1) and two (2) to his/her peers and superiors.

4. Placed in a real shop situation, the student will be able to demonstrate satisfactory interpersonal relationships with his/her peers and superiors.

5. Placed in a real shop situation, the student will be able to evaluate his/her contribution to the overall operation of the shop via the production efficiency method.

Program Goals at Certificate Level

1. The student is prepared to secure employment in training related work.

2. The student is equipped to retain employment in training related work.

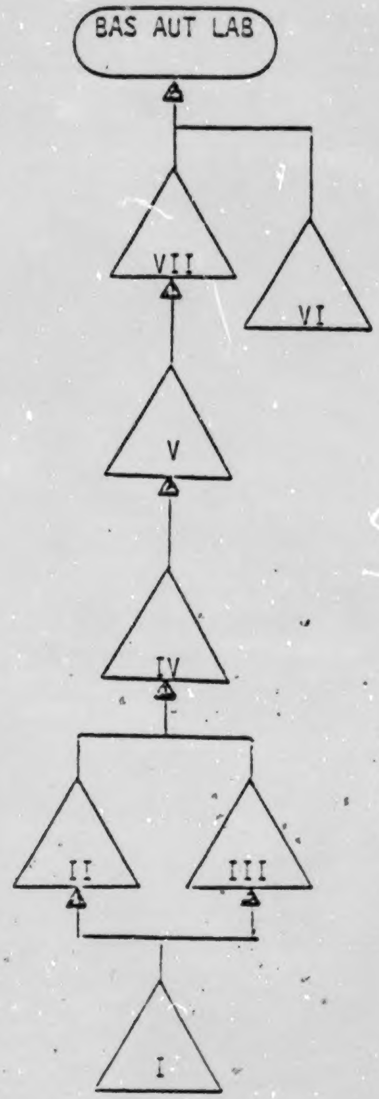
3. The student is gratified by employment in training related work.

4. The student is prepared to successfully pursue an associate of science degree.

Course Map AUM ______

MAJOR LEARNING OUTCOMES

Course Title Basic Automotive Lab Course Number ____



I. Placed in a simulated shop situation, the student will demonstrate the practices of safe operation in the shop in all cases.

II. Given a group of fasteners, the student will identify each one as to type, tensile strength rating, and probable use to 100% accuracy.

III. Given a group of hand tools, the student will identify each one using correct terminology and state a probable use with 100% accuracy.

IV. Placed in a simulated shop situation, the student will locate, trace and identify the various systems and components of the modern automobile with 100% accuracy.

V. Given automotive parts, pertinent service manuals and precision measuring instruments, the student will measure those parts and compute specification variation to 90% accuracy.

VI. Given an oxyacetylene torch, rods of proper material and parent metals, the student will solder, braze, and weld the parents to be waterproof and crack free.

VII. Given a modern automobile, the proper equipment, manuals and/or charts, the student will change oil, oil filter, and lubricate the chasis to factory specifications while performing all pertinent corrections and/or adjustments.

MAJOR LEARNING OUTCOMES

Course Title Basic Automotive Lab Course Number ______

1. Placed in a simulated shop situation, the student will locate, trace and identify the various systems and components of the modern automobile with 100% accuracy.

2. Placed in a simulated shop situation, the student will demonstrate the practices of safe operation in the shop in all cases.

3. Given a group of fasteners, the student will identify each one as to type, tensile strength rating, and probable use to 100% accuracy.

4. Given a group of hand tools, the student will identify each one using correct terminology and state a probable use with 100% accuracy.

5. Given automotive parts, pertinent service manuals, and precision measuring instruments, the student will measure those parts and compute specification variation to 90% accuracy.

6. Given an oxyacetylene torch, rods of proper material and parent metals, the student will solder, braze, and weld the parents to be waterproof and crack free.

Course Name Engine Theory Course Number ______

1. Given a specific model of automobile, specifications of which are available, the student will be able to coordinate the principle of the Engine with 100% accuracy.

2. Given a specific model of automobile, with verified symptoms, the student will predict the probable cause or causes of failure in the Engine with 100% accuracy.

3. Given a word problem concerning a failure in the Engine of a specific model of automobile, the student will be able to solve by applying computation and/or deduction, and report orally or in written form a probable solution chosen from a pertinent diagnostic chart with 100% accuracy.

Course Name -- Engine Lab

1. Placed in a simulated shop situation and given the pertinent manuals and equipment, the student will be able to diagnose the cause or causes of failure to any system pertinent to the Engine of the modern automobile, under supervision, with 100% accuracy.

2. Placed in a simulated shopt situation and given the pertinent manuals, tools, and equipment, the student will be able to correct a failure or failures to any system pertinent to the Engine of the modern automobile, under supervision, with 100% accuracy.

3. Placed in a simulated shop situation, the student will be able to communicate orally or in written form the tasks and duties he has performed in the accomplishments of outcomes (1) and (2) to his/her classmates or instructor in an understandable form.

Course Name -- Electrical Accessory Circuit Theory

1. Given a specific model of automobile, specifications of which are available, the student will be able to coordinate the principle of the Electrical System with 100% accuracy.

2. Given a specific model of automobile, with verified symptoms, the student will predict the probable cause or causes of failure in the Electrical System with 100% accuracy.

3. Given a work problem concerning a failure in the Electrical Ssytem of a specific model of automobile, the student will be able to solve by applying computation and/or deduction, and report orally or in written form a probable solution chosen from a pertinent diagnostic chart with 100% accuracy.

Course Name -- Electrical Accessory Circuit Lab

1. Placed in a simulated shop situation and given the pertinent manuals and equipment, the student will be able to diagnose the cause or causes of failure to any system pertinent to the Electrical System of the modern automobile, under supervision, with 100% accuracy.

2. Placed in a simulated shop situation and given the pertinent manuals, tools and equipment, the student will be able to correct a failure or failures to any system pertinent to the Electrical System of the modern automobile, under supervision, with 100% accuracy.

3. Placed in a simulated shop situation, the student will be able to communicate orally or in written form the tasks and duties he has performed in the accomplishments or outcomes (1) one and (2) two to his/her classmates or instructor in an understandable manner.

Course Name -- Power Train Theory

1. Given a specific model of automobile, specifications of which are available, the student will be able to coordinate the principle of the Power Train with 100% accuracy.

2. Given a specific model of automobile, with verified symptoms, the student will be predict the probable cause or causes of failure in the Power Train with 100% accuracy.

3. Given a word problem concerning a failure in the Power Train of a specific model of automobile, the student will be able to solve by applying computation and/or deduction, and report orally or in written form a probable solution chosen from a pertinent diagnostic chart with 100% accuracy.

Course Name -- Power Train Lab

1. Placed in a simulated shop situation and given the pertinent manuals and equipment, the student will be able to diagnose the cause or causes of failure to any system pertinent to the Power Train of the modern automobile under supervision, with 100% accuracy.

2. Placed in a simulated shop situation and given the pertinent manuals, tools and equipment, the student will be able to correct a failure or failures to any system pertinent to the Power Train of the modern automobile, under supervision, with 100% accuracy.

3. Placed in a simulated shop situation the student will be able to communicate orally or in written form the tasks and duties has has performed in the accomplishments of outcomes (1) and (2) to his/her classmates or instructor in an understandable form.

Course Name -- Diesel Engine Theory

1. Given a specific model of automobile, specifications of which are available, the student will be able to coordinate the principle of the Diesel Engine with 100% accuracy.

2. Given a specific model of automobile, with verified symptoms, the student will predict the probable cause or causes of failure in the Diesel Engine with 100% accuracy.

3. Given a word problem concerning a failure in the Diesel Engine of a specific model of automobile, the student will be able to solve by applying computation and/or deduction and report orally or in written form a probable solution chosen from a pertinent diagnostic chart with 100% accuracy.

Course Name -- Brakes and Suspension Theory

1. Given a specific model of automobile, specifications of which are available, the student will be able to coordinate the principle of Brakes & Suspension with 100% accuracy.

2. Given a specific model of automobile, with verified symptoms, the student will predict the probable cause or causes of failure in the Brakes & Suspension with 100% accuracy.

3. Given a word problem concerning a failure in the Brakes & Suspension of a specific model of automobile, the student will be able to solve by applying computation and/or deduction, and report orally or in written form a probable solution chosen from a pertinent diagnostic chart with 100% accuracy.

Course Name -- Brakes & Suspension Lab

1. Placed in a simulated shop situation and given the pertinent manuals and equipment, the student will be able to diagnose the cause or causes of failure to any system pertinent to the Brakes and Suspension of the modern automobile, under supervision, with 100% accuracy.

2. Placed in a simulated shop situation and given the pertinent manuals, tools, and equipment, the student will be able to correct a failure or failures to any system pertinent to the Brakes and Suspension of the modern automobile, under supervision, with 100% accuracy.

3. Placed in a simulated shop situation, the student will be able to communicate orally or in a written form the tasks and duties he has performed in the accomplishments of outcomes (1) one and (2) two to his/her classmates or instructor in an understandable form.

Course Name -- Tune Up Theory

1. Given a specific model of automobile, specifications of which are available, the student will be able to coordinate the principle of the Tune Up with 100% accuracy.

2. Given a specific model of automobile, with verified symptoms, the student will predict the probable cause or causes of failure in the Tune Up with 100% accuracy.

3. Given a word problem concerning a failure in the Tune Up of a specific model of automobile, the student will be able to solve by applying computation and/or deduction and report orally or in written form a probable solution chosen from a pertinent diagnostic chart with 100% accuracy.

Course Name -- Tune Up Lab

1. Placed in a simulated shop situation and given the pertinent manuals and equipment, the student will be able to diagnose the cause or causes of failure to any system pertinent to the Tuning of the modern automobile under supervision, with 100% accuracy.

2. Placed in a simulated shop situation, and given the pertinent manuals, tools, and equipment, the student will be able to correct a failure or failures to any system pertinent to the Tuning of the modern automobile under supervision, with 100% accuracy.

3. Placed in a simulated shop situation the student will be able to communicate orally or in written form the tasks and duties he has performed in the accomplishments of outcomes (1) one and (2) two to his/her classmates or instructor in an understandable form.

Course Name -- Automatic Transmission Theory

1. Given a specific model of automobile, specifications of which are available, the student will be able to coordinate the principle of the Automatic Transmission with 100% accuracy.

2. Given a specific model of automobile with verified symptoms, the student will predict the probable cause or causes of failure in the Automatic Transmission with 100% accuracy.

3. Given a word problem concerning a failure in the Automatic Transmission of a specific model of automobile the student will be able to solve by applying computation and/or deduction, and report orally or in written form a probable solution chosen from a pertinent diagnostic chart with 100% accuracy.

Course Name -- Automatic Transmission Lab

1. Placed in a simulated shop situation, and given the pertinent manuals and equipment, the student will be able to diagnose the cause or causes of failure to any system pertinent to the Automatic Transmission of the modern automobile, under supervision with 100% accuracy.

2. Placed in a simulated shop situation and given the pertinent manuals, tools, and equipment, the student will be able to correct a failure or failures to any system pertinent to the Automatic Transmission of the modern automobile, under supervision, with 100% accuracy.

3. Placed in a simulated shop situation, the student will be able to communicate orally or in written form the tasks and duties he has performed in the accomplishments of outcomes (1)one and (2)two to his/her classmates or instructors in an understandable form.

Course Name -- Heating and Air Conditioning Theory

1. Given a specific model of automobile, the specifications of which are available, the student will be able to coordinate the principle of the Heating and Air Conditioning System with 100% accuracy.

2. Given a specific model of automobile, with verified symptoms, the student will predict the probable cause or causes of failure in the Heating & Air Conditioning System with 100% accuracy.

3. Given a word problem concerning a failure in the Heating and Air Conditioning System of a specific model of automobile, the student will be able to solve applying computation and/or deduction and report orally or in written form a probable solution chosen from a pertinent diagnostic chart with 100% accuracy.

Course Name -- Heating and Air Conditioning Lab

1. Placed in a simulated shop situation and given the pertinent manuals and equipment the student will be able to diagnose the cause or causes of failure to any system pertinent to the Heating and Air Conditioning of the modern automobile, under supervision, with 100% accuracy.

2. Placed in a simulate shop situation, and given the pertinent manuals, tools and equipment, the student will be able to correct a failure or failures to any system pertinent to the Heating and Air Conditioning of the modern automobile, under supervision, with 100% accuracy.

3. Placed in a simulated shop situation, the student will be able to communicate orally or in written form the tasks and duties he has performed in the accomplishments of outcomes (1) one and (2) two to his/her classmates or instructors in an understandable form.

Course Name -- Service Operation Theory

1. Given a set of stated goals, the student will identify objectives in a logical manner that will permit the achievements of these goals in written and oral form.

2. Given a word problem concerned with human relations in the Service Department, the student will synthesize a solution which allows the achievements of the goals of long and short term profits. The student will report his findings both orally and in written form.

3. Given the necessary forms and data, the student will compute the production efficiency of a Service Department for a one week period to 100% accuracy.

4. Assuming a local dealership, the student will list and compute the investment in a single technicians work stall. From this he will solve for the daily turnkey expense for said staff. Results will be at least 80% accurate.

Course Name -- Externship

1. Placed in a real shop situation, the student will demonstrate punctuality, reliability, enthusiasm, motivation and ambition to the satisfaction of the instructor and shop supervisor.

2. Placed in a real shop situation, the student will produce works of sufficient quality and quantity to be acceptable to the instructor and shop supervisor.

3. Placed in a real shop situation, the student will develop and maintain satisfactory interpersonal relationships with personnel of the dealership to which he/she is assigned to the satisfaction of the instructor and shop supervisor.

WEEKLY STUDENT EXTERNSHIP EVALUATION

STUDENT NAME:

DEALERSHIP:

WEEK ENDING:

GRADING SYSTEM

Point Values:		
	Outstanding	15
	Satisfactory	10
	Unsatisfactory	0

A - 70 B - 60 C - 55 D - 45

	OUTSTANDING	SATISFACTORY	UNSATISFACTORY
1. Punctuality and reliability			
2. Enthusiasm, motivation and ambition			
3. Quality of work performed			
4. Quantity of work performed			
5. Interpersonal relations with dealership personnel			
Column Totals			
Total Score			

We, the undersigned, have discussed this report.

Instructor

Student

Supervisor

Learning Outcomes for Individual Courses

Assessment Tasks

Term IV - Externship - 2 credits

Learning Outcome 1. Placed in a dealers service department the fourth term student will demonstrate his/her knowledge of the systems of the modern automobile by performing the normal tasks and duties of a mechanic's helper evaluated by the technician and supervisor of the shop to which he/she is assigned.

Assessment Task 1. You will participate in a weekly evaluation at the dealership to which you are assigned in meeting with the instructor and supervisor to determine your progress and grade.

Learning Outcome 2. Placed in a dealers service department the fourth term student will communicate, in written form, and outline of his/her daily experiences in his role as a mechanic's helper, to the instructor using correct and acceptable terminology.

Assessment Task 2. Prepare a daily written report in outline form of your daily duties at the dealership to which you are assigned. Please turn this in to your instructor each Monday.

Term IV - Service Operation Theory - 3 credits

Learning Outcome 1. Given a dealer's monthly financial statement, the student will compute the percentage of service absorption in that dealership for the period encompassed by the statement to 100% accuracy.

Assessment Task 1. Please compute the percentage absorption for the dealership in the month given on the accompaning monthly financial statement.

Learning Outcome 2. Given a Daily Operating Control showing individual technician production, the student will compute the production efficiency of each technician with 100% accuracy.

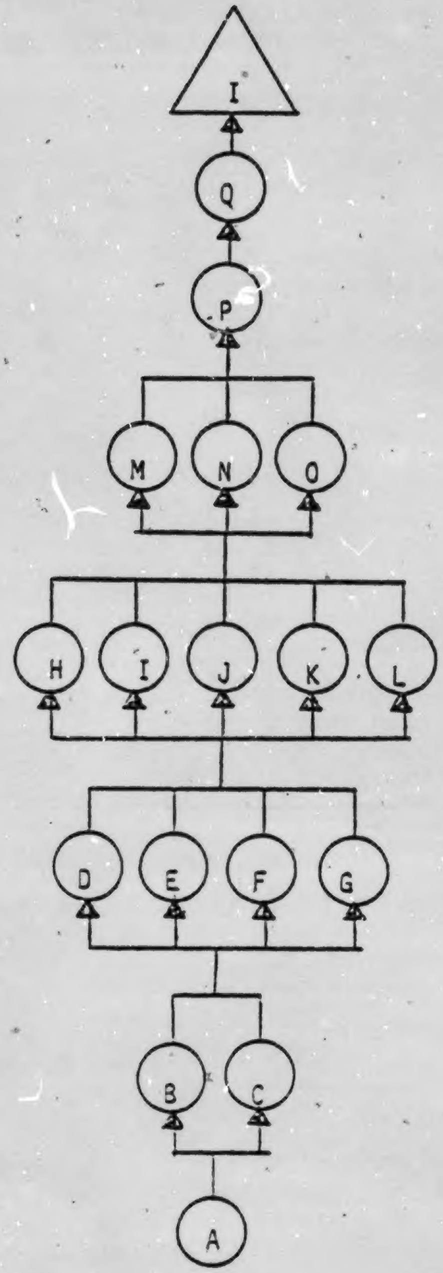
Assessment Task 2. Compute the production efficiency of technician number ______ on the attached DOC sheet.

Learning Outcome 3. Given stated problems dealing with employee stability, the students in groups of three, will synthesize one or more solutions to each problem.

Assessment Task 3. Your group will synthesize a solution to the problems of service employed retention in a dealership with the following conditions.

Learning Outcome 4. Given stated problems, dealing with personnel management of a service department, the students, in groups of three, will develop solutions leading to corrective action.

Assessment Task 4. Develop a solution by group discussion to the problem of a technician who is repeatedly tardy. Carry the solution through at least three phases of disciplinary action.



ACTIVITIES FLOW-LEARNING OUTCOME I
of
BASIC AUTO LAB, AUM ____________

Following is a map with appropriate listing of activities which students must satisfactorily perform in order to achieve Learning Outcome I of the Basic Auto Lab, AUM _______________.

A. Watch safety film

B. Tour laboratory facility

C. Define student responsibility

D. Use floor jack

E. Use lift

F. Practice hand tool safety

G. Practice use of creeper

H. Prevent or avoid electrical shock

I. Handle spills safely

J. Handle solvents safely

K. Practice safety with vaporizing liquids

L. Use the oxy-acetylene torch safely

M. Demonstrate respect for fellow student

N. Practice good clothing & grooming habits

O. Demonstrate respect for equipment safety zones

P. Succeed in practical test of safe practices

Q. Succeed in written test of safe practice knowledge (multiple choice)

PERFORMANCE REQUIREMENTS

Automotive Mechanic and/or Mechanic Helper

TASK I: Replace Engine Mounts:

Given a vehicle with faulty engine mounts, the proper parts, hand tools, equipment, and manufacturers service manual, the student will replace engine mounts to meet manufacturer specifications in period not to exceed 120% of flat rate time.

TASK II: Disassemble Engine:

Given an engine, proper hand tools, equipment, and manufacturers repair manual, the student will disassemble the engine following, step by step, the manufacturers directions under instructors supervision.

TASK III: Measure Cylinder Bore, Taper and Out of Round:

Given a bare block, precision measuring instruments, and the pertinent manufacturers service manual, the student will select the proper instrument or instruments, and measure cylinder bore, taper, and out of round, recording his measurements and determining the variations from manufacturers specifications. The measurements will reflect 100% accuracy.

TASK IV: Adjust Valves:

Given an engine with improperly adjusted valves, proper gages, tools, equipment and the appropriate service manual, the student will adjust the valve clearance to manufacturers specifications using manufacturers procedures in a step by step manner.

TASK V: Operationally Test the Positive Crankcase Ventilation System:

Given an operating vehicle, proper tools, equipment and an appropriate service manual, the student will test the function of the positive crankcase ventilation system using the recommended procedure and identifying existing malfunctions.

TASK VI: Pressure Test the Cooling System:

Given an automobile with a liquid cooling system, proper tools, equipment, and the appropriate service manual, the student will pressure test the cooling system according to manufacturers instructions and identify any and all leaks.

TASK VII: Measure Fuel Flow and Pressure:

Given an operating vehicle, the proper tools, equipment, and service manual, the student will measure fuel flow by volume and fuel pressure with 100% accuracy.

TASK VIII: Replace Pilot Bearing (Bushing):

Given an autobobile with a faulty pilot bearing, or bushing, the proper tools, equipment, and service manual, the student will remove the faulty part and install a new one to manufacturers specifications.

TASK IX: Repair Hydraulic Clutch Controls:

Given an automobile with faulty hydraulic clutch controls, necessary tools, equipment and the proper service manual, the student will make the necessary repairs according to the manufacturers directions. Upon completion of the repair, the mechanism shall function according to specifications.

TASK X: Adjust Worm and Sector in Steering Gear:

Given an automobile with adjustable worm and sector steering gear, proper tools, equipment and the pertinent manufacturers service manual, the student will adjust the worm and sector in accordance with manufacturers procedure and specifications.

TASK XI: Adjust and Repack Front Wheel Bearings:

Given a vehicle, proper tools, equipment, material and service manual, the student will remove, clean, inspect, reinstall and adjust preload in accordance with manufacturers procedures and specifications.

TASK XII: Bleed Hydraulic Brakes:

Given an automobile with air in the hydraulic brake system, proper tools, equipment, material, and the manufacturers service manual, the student will bleed the system in accordance with manufacturers procedures. Upon completion of the procedure, the system will be free of air and the brake pedal will be solid.

UTILIZATION PLAN

We are presently sufficiently advanced to present the competency based automotive mechanics program to our Curriculum Committee. We have mapped the program, defined program outcomes and goals, and defined individual course learning outcomes.

I am presently teaching mapping technique to the other involved faculty. Since we plan to have each instructor teach specialized courses giving the students the benefit of his special expertise, it is necessary that each instructor be able to and in fact prepare his own individual course curricula. This shall be done individually under the supervision of the Warrington Campus Provost.

Further, at this time we are collecting questionnaires from manufacturers and dealers which will specify the tasks which must be taught to prepare the student for successful entry into employment. I hope that we will have sufficient responses by July 1, 1979, to begin tabulation through the school computer. Perhaps this can be done as a learning project by students in Computer Science.

Several other items remain to be accomplished. A proposed time table for their accomplishment follows:

I.	Completion of task tabulation	July 14, 1979
II.	Assignment of individual tasks to specific courses	July 23, 1979
III.	Rough drafts of course maps and activities completed	September 1, 1979
IV.	Finalization of course maps and activities completed	September 15, 1979

V.	Rough drafts of assessment tasks for individual courses completed	September 29, 1979
VI.	Finalization of assessment tasks for individual courses completed	October 13, 1979
VII.	Rough drafts of exemption exams completed	November 3, 1979
VIII.	Finalization of exemption exams completed	November 17, 1979
IX.	Finalized program delivered to department, school, and college	November 26, 1979

Presently we are meeting each Monday afternoon from 3 p.m. to 4 p.m. It is recommended that the meetings be changed to Friday afternoon for the 1979/80 school year.

Success of this and other occupational programs is dependent upon students equipped with basic learning skills. Therefore, it is hoped that the College and the Department of Education will see fit to establish and support a basic skills lab, at least on the Warrington Campus. Dr. Margaret Heath (CAEL Project participant) has applied for a Vo-Tech Division DOE grant (Type II-Academically Disadvantaged) to establish such a lab in the 1979/80 school year. If the grant is awarded, this will implement pre-testing, and the remediation cycle will be developed. This will greatly improve student retention and competency. It had been suggested by DOE representatives at the final re-evaluation project meeting that we also apply for an I.M.T.S. Center to provide this remediation as we are one of the few community colleges in the state not operating such a facility. The College administration, at this time, seems disinterested in pursuit of development of an I.M.T.S. Center.

RATIONALE FOR PROPOSED CHANGE IN AUTOMOTIVE MECHANICS PROGRAMS

This program will allow for the consolidation of our present programs into one all-encompassing program teaching to both domestic and imported vehicles. In this manner we can better employ the equipment we presently have to enrich the students' learning experiences over a broadened base.

Students will be required to perform at a satisfactory academic level, defined as a 2.0 GPA if he is to progress. This will insure the development of the grade of certificate or degree graduates which is necessary. Logical prerequisites implement the facet.

In that all courses of the program will be offered in each term, we have developed a true open-entry program which can now progress in a logical order. It is a fact that understanding of the more intricate of specialized systems of the modern automobile is dependent on a comprehension of other perhaps simpler systems. With this in mind, the program was designed.

Design of the program allows the full integration of the CETA automotive mechanics student into the regular program. At the end of each term the student will be capable of employment at some specific level in the automotive service field. These would be the following:

First term --	Service station attendant or lube person
Second term --	Mechanics helper
Third term --	Advanced trainee mechanic
Fourth term --	Prepares for upward mobility and begins A.S. program

A decidedly large number of entering students are not educationally equipped to succeed in the program as it exists as they are lacking in mathematical and communication skills along with poorly or undeveloped attitudinal traits. This is a definite retarding factor in retention. The first term curriculum is designed to compensate this lack while providing the same eight clock hours in the automotive lab as the present program. Naturally, exemption examinations will be provided here and throughout the program in order to allow more accomplished students to proceed.

The courses are designed to enable the student to successfully complete the NIASE tests for each segment.

Our educational accountability is enhanced by a standardization of average students produced. This is accomplished by individual instructors teaching subjects in their field of greatest expertise both day and evening. The outstanding student is to be encouraged to excel.

The outcomes of the program and each course are clearly defined. This better equips our students to succeed and eliminates complaints. The student will know where he/she stands and how he/she is progressing.

In that instructors are teaching the same courses both day and evening, we have made it possible for the shift worker to participate as well as a student who takes employment in order to continue. Course content is the same, both day and evening.

The student is encouraged to pursue higher education by case of transition from certificate to A.S. degree.

In that the individual instructor is required to teach in specialized fields, he is able to maintain a far greater degree of currency. Thus, students' learning experience is enhanced.

The students' learning experience is further enhanced by being exposed to a multiplicity of instructors whose approach to teaching and problem solving will differ. In this manner, academic boredom is also avoided.

Valid and reliable assessments for each course have been devised. They will accurately test the degree of course outcome achievements.

Utilization of costly special equipment is increased by teaching all courses each term. At the same time, security of and accountability for this equipment is increased by assignment to an individual instructor.

The student is allowed a choice of direction by being able to advance to the degree of education necessary to achieve his/her individual goals.

The program is attractive and desirable to the concerned industry. This is achieved by providing a more steady flow of employable products. Further, the offering of all courses each term allows them to avail their employees of individual courses when needed.

The tasks which comprise the steps toward each learning outcome for each course are chosen by the automotive industry. This is accomplished by an evaluation sheet depicting all tasks with which we are familiar and additions which they may recommend.

INDUSTRIAL TASK ANALYSIS

TO: Industry Representatives and Graduates

FROM: Arthur Hyland, Jr., Instructor, Automotive Mechanics

DATE:

RE:

In order that we may be able to provide you with (1) graduates able to develop within industry and (2) upgraded technicians, we need information from you to assist us in updating our courses. We have listed a group of tasks which we are asking that you evaluate. The evaluation system is fairly simple. Please examine each task and make a determination regarding it. Some, I am certain, are necessary; others desirable. Yet some others will not be needed. Please indicate your decisions, since this is the best method we have to plan for future course improvements. Please add any needed additional tasks.

While making your decisions, please bear in mind that we are a post-secondary or college level institution and our programs are aimed at something slightly above pure "entry" level.

Your cooperation is greatly appreciated in this effort and we hope to become more useful to you as an educational facility as time progresses.

General

	NECESSARY	DESIRABLE	UNNECESSARY
1. Steam clean components			
2. Solder			
3. Weld and cut with oxy-acetylene			
4. Measure with inside and outside micrometer			
5. Measure with vernier calipers			
6. Set up and measure with dial indicator			
7. Identify fastener grades and types			
8. Identify and locate components in car			
9.			
10.			
11.			
12.			
13.			
14.			

	NECESSARY	DESIRABLE	UNNECESSARY
Engine			
1. Replace engine mounts			
2. Remove engine from vehicle			
3. Disassemble engine			
4. Clean engine parts and check condition			
5. R & R oil pan			
6. R & R oil pump and measure			
7. Replace camshaft			
8. Replace camshaft and bearings			
9. Replace timing gears and chains			
10. Replace crankshaft and bearings			
11. Measure and fit bearings			
12. Operationally inspect engine lubrication system			
13. Fit piston pins			
14. Replace piston and rings			
15. Replace connecting rods and fit bearings			
16. Inspect cylinder head for cracks			
17. Inspect cylinder head for warpage			
18. R & R valves			
19. Measure valve guides			
20. Replace valve guides			
21. Knurl valve guides			
22. Resurface valve seats			
23. Grind valves			

	NECESSARY	DESIRABLE	UNNECESSARY
24. Adjust valves			
25. Diagnose valve train and head faults			
26. Replace flywheel and flywheel ring gear			
27. Inspect exhause system			
28. Replace exhaust manifold			
29. Replace muffler and pipes			
30. Perform cylinder compression test			
31. Perform cylinder balance test			
32. Perform cylinder leakage test			
33. Test coolant temperature			
34. Test coolant freezing point			
35. Pressure test cooling system			
36. Chemically clean and flush cooling system			
37. Check expansion tank			
38. Replace radiator hose			
39. Replace heater hose			
40. Test and/or replace thermostat			
41. R & R radiator			
42. R & R water pump			
43. Replace fan clutch			
44. Replace freeze plugs			
45. Solder minor leaks in radiator			
46.			
47.			

Fuel System	NECESSARY	DESIRABLE	UNNECESSARY
1. Inspect, service, or replace fuel system air cleaner			
2. Replace fuel filter			
3. Clean fuel filter			
4. Replace or repair fuel lines or hoses			
5. Measure fuel flow volume and pressure			
6. R & R fuel pump			
7. R & R fuel tank			
8. Purge fuel system			
9. Analyze for moisture and foreign matter in the fuel system			
10. Adjust and/or balance carburetors			
11. Inspect, clean, and adjust chokes			
12. R & R carburetor			
13. D & A and repair carburetor			
14. Perform functional tests and adjust MPC electronic fuel injection system			
15. Perform functional tests and adjust AFC electronic fuel injection system			
16. Perform functional tests and adjust continuous injection system			
17. Adjust fuel injection timing			
18. Replace fuel injection governor			
19. R & R intake manifold & inspect			
20.			
21.			
22.			

Emission Control System	NECESSARY	DESIRABLE	UNNECESSARY
1. Operationally test PCV system			
2. Inspect and service evaporative emission control system			
3. Service EGR system			
4. Service AIR system			
5. Service TCS sytem			
6. Service or repair manifold heat control			
7.			
8.			
9.			
10.			

Power Train

	NECESSARY	DESIRABLE	UNNECESSARY
1. Adjust clutch			
2. R & R clutch assembly			
3. Replace release bearing			
4. Replace pilot bearing			
5. Repair mechanical clutch control			
6. Repair hydraulic clutch control			
7. Repair or adjust standard transmission linkage			
8. Test manual transmission operation			
9. Overhaul standard transmission			
10. R & R driveline			
11. Replace driveline center support or bearing			
12. Overhaul universal joint			
13. Lubricate universal joint			
14. Rebuild overdrive unit (Lay cock)			
15. Service overdrive unit (Lay cock)			
16. Analyze and repair overdrive electrical control circuit			
17. Repair and/or adjust front drive axle assembly			
18. R & R front axle drive assembly			
19. Diagnose differential malfunction			
20. Replace pinion seal			
21. Replace rear drive axle bearing and/or seal			
22. Overhaul differential assembly			
23. Perform operational test of automatic transmission			

	NECESSARY	DESIRABLE	UNNECESSARY
24. Adjust automatic transmission linkage			
25. Replace modulator			
26. Replace or adjust throttle cable			
27. Replace or adjust neutral safety switch			
28. Service and adjust automatic transmission			
29. Repair or replace external seals, lines, and gaskets on automatic transmission			
30. Inspect and repair automatic transmission cooling system			
31. Install automatic transmission auxiliary cooler			
32. Lubricate speedometer cable			
33. Replace speedometer cable			
34. Replace speedometer driver gear			
35. R & R automatic transmission			
36. Replace governor			
37. R & R and inspect torque converter			
38. R & R and inspect front pump, seal, and bushing			
39. Clean and repair valve body			
40. Overhaul automatic transmission			
41.			
42.			
43.			
44.			

Suspension

	NECESSARY	DESIRABLE	UNNECESSARY
1. Lubricate steering gear and linkage			
2. Check manual steering gear fluid level			
3. Inspect and adjust manual steering gear			
4. Inspect steering gear linkage			
5. R & R manual steering gear			
6. Replace manual steering gear linkage components			
7. Replace steering spindles			
8. Replace power steering pump			
9. Check power steering fluid level			
10. Replace power steering belt and adjust tension			
11. Adjust or rebuild power steering unit			
12. Replace collapsible mast jackets (steering)			
13. Replace tilt and telescoping steering wheels			
14. Lubricate suspension			
15. Replace king pins			
16. Analyze and replace ball joints			
17. Replace shock absorbers and/or mounts			
18. Replace McPherson struts			
19. R & R front wheel bearings			
20. Replace front wheel bearing seals			
21. Repack and set preload of front wheel bearings			
22. Balance wheels and tires			
23. Visually inspect front suspensions			

	NECESSARY	DESIRABLE	UNNECESSARY
24. Replace control arms and bushings			
25. Replace torsion bars			
26. Adjust torsion bars			
27. Replace coil springs			
28. Replace leaf springs			
29. Replace or repair stabilizer bars			
30. Analyze and align front end			
31.			
32.			
33.			
34.			

Brakes

	NECESSARY	DESIRABLE	UNNECESSARY
1. Operationally test and inspect brakes			
2. Adjust brakes			
3. Inspect and refinish brake drums			
4. Inspect and resurface brake rotors			
5. Arc grind brake shoes			
6. Replace brake shoes			
7. Repair or replace self-adjusters			
8. Repair wheel cylinder			
9. Replace wheel cylinder			
10. Replace or repair master cylinder			
11. Replace hydraulic control valves			
12. Replace or repair vacuum booster unit			
13. Bleed hydraulic brakes			
14. Replace disc brake pads			
15. Overhaul disc brake calipers			
16. Replace or free up parking brake cables			
17. Adjust parking brake linkage			
18.			
19.			
20.			

Electrical	NECESSARY	DESIRABLE	UNNECESSARY
1. Test battery			
2. Service or replace battery, battery box, and cables			
3. R & R starter			
4. Analyze and repair cranking circuit			
5. Overhaul cranking motor			
6. Replace cranking motor solenoid			
7. Analyze alternator and regulator output			
8. R & R alternator			
9. Overhaul alternator			
10. R & R charging system regulator			
11. Inspect and analyze lighting system			
12. Adjust headlamps			
13. Adjust back-up light switches			
14. Repair or replace lighting system components			
15. Replace twin signal flasher			
16. Repair or replace fuse block			
17. Test or rewire dash units			
18. Locate and repair shorts and opens in wiring			
19. Replace or repair wiring harness			
20. Interpret and read schematic or wiring diagram			
21. Repair or replace dash instruments and wiring			
22. Inspect and test windshield wiper motor, blades, and arms			
23. Repair windshield wiper mechanism and controls			

	NECESSARY	DESIRABLE	UNNECESSARY
24. Test and repair cruise control			
25. Inspect and analyze primary and secondary ignition circuit			
26. Set cam angle dwell			
27. Replace ignition coil			
28. Set ignition timing			
29. Replace ignition switch			
30. Replace ballast resistor			
31. Inspect and test ignition parts and condenser			
32. Replace ignition points and condenser			
33. Analyze, clean, set, and test spark plugs			
34. Overhaul distributor			
35. Test and correct distributor spark advance curve			
36. Test and repair electronic ignition system			
37. R & R distributor			
38. Analyze and adjust engine performance using engine analyzer			
39.			
40.			

Air Conditioning and Heating

	NECESSARY	DESIRABLE	UNNECESSARY
1. Performance test and analyze air conditioning system			
2. Leak test air conditioning system			
3. Purge and evacuate air conditioning system			
4. Recharge air conditioning system			
5. Replace receiver dryer unit			
6. R & R air conditioner compressor			
7. Replace air conditioner seal			
8. Repair air conditioner compressor			
9. Replace condenser in air conditioning system			
10. Replace evaporator in air conditioning system			
11. Replace expansion valve in air conditioning system			
12. Replace evaporator control valve			
13. Repair VIR unit			
14. Analyze and repair vacuum circuits			
15. Repair electrical control circuit			
16. Replace blower fan motor			
17. Repair or adjust air conditioner control cables			
18. Install air conditioner in vehicle			
19. Diagnose heating system malfunctions			
20. Replace defroster hose			
21. Replace heater control unit			
22. R & R heater core			

Customer Service

	NECESSARY	DESIRABLE	UNNECESSARY
1. Demonstrate integrity in decision making			
2. Demonstrate knowledge of government programs affecting the industry			
3. Demonstrate knowledge of fringe benefits common to the industry			
4. Demonstrate awareness of one's role in the organization			
5. Demonstrate self confidence in adapting to the employment role			
6. Relate amicably with fellow workers, supervisors, and customers			
7.			
8.			
9.			
10.			

Mathematics	NECESSARY	DESIRABLE	UNNECESSARY
1. Apply the concepts of arithmetic to solve problems at work			
2. Evaluate the correctness of one's pay record			
3. Compute arithmetically one's production efficiency			
4. Prepare and calculate accurately customer billings including labor, parts, materials, and tax			
5.			
6.			
7.			
8.			

SKILL RATING SHEET FOR
VOC/TECH EMPLOYERS

Dr. Margaret Heath
Pensacola Jr. College

MAJOR LEARNING OUTCOMES (EMPLOYER EXPECTATIONS)
COMMUNICATION SKILLS

Employers could expect the following major competencies from voc/tech students after completing the course in COMMUNICATION SKILLS

Please rate the following communication skills for your job area.	NECESSARY	DESIRABLE	UN-NECESSARY
OBTAINING EMPLOYMENT When applying for employment, the potential employee will demonstrate appropriate speaking, listening, writing and reading skills.			
1. Be able to read and understand any written material involved in the job application process.			
2. Be able to complete all required application forms, write any necessary application letters and prepare a resume.			
3. Be able to take part in a successful job interview involving both general and technical questions.			
MAINTAINING EMPLOYMENT Once employed, the student (employee) should demonstrate appropriate communication skills necessary for keeping the job.			
1. Be able to communicate successfully with employers or supervisors regarding job responsibilities and/or job assignments.			
2. Be able to communicate information to a customer (client) and other employees in a suitable manner.			
3. Be able to take an order or message correctly from a phone conversation.			
4. Be able to listen to and correctly follow oral instructions			
5. Be able to ask appropriate questions to accomplish his assigned tasks.			
6. Be able to write any necessary work or supply orders.			
7. Be able to write any job related reports.			
8. Be able to write any job related memos or letters or bills.			
9. Be able to read and understand any job related materials such as technical manuals, shop procedures and business correspondence and memos.			
10. Be able to interpret material read and perform the necessary task correctly.			

PROGRAM: CHILD CARE

PROGRAM MANAGER: DR. ANN SOUTHERLAND
DEPARTMENT OF HOME ECONOMICS
PENSACOLA JUNIOR COLLEGE

The Child Care program is a two-year associate of science curriculum designed to prepare a child care specialist with basic competencies to assume the primary responsibility for the daily activities of groups of preschool children in center-based programs. The major emphasis is for the practitioner to translate contemporary theory into practical application.

Normally the graduate begins employment in a child care center working directly with children up to the age of four.

Freshman Year

Term I		Term II	
ENC 1103 English Composition	3 cr.	HUM 2930 Technological Humanities	2 cr.
SSI 1011 Social Science Survey	3	SSI 1012 Social Science Survey	3
CHD 1804 Intro. to Child Care	2	CHD 1340 Language Development	3
CHD 1820 Physical Needs of Child	3	CHD 1221 Cognitive Development	3
CHD 1821 Infancy	3	CHD 1824 Emotional Development	3
		CHD 2440 Practicum	2

Sophomore Year

Term I		Term II	
BSC 1030 Biology	3 cr.	BSC 1031 Biology or AST 1005	3 cr.
ENC 1136 English Composition	3	MGF 1113 Math or MAE 1810	3
CHD 1825 Interrelationships	2	CHD 2828 Teaching Young Children	3
CHD 2826 Exploration of Media	3	HUN 1200 Basic Nutrition for Food Service	3
CHD 2827 Parenthood	3	CHD 2829 Interaction of Child's World	3
CHD 2440 Practicum	3		

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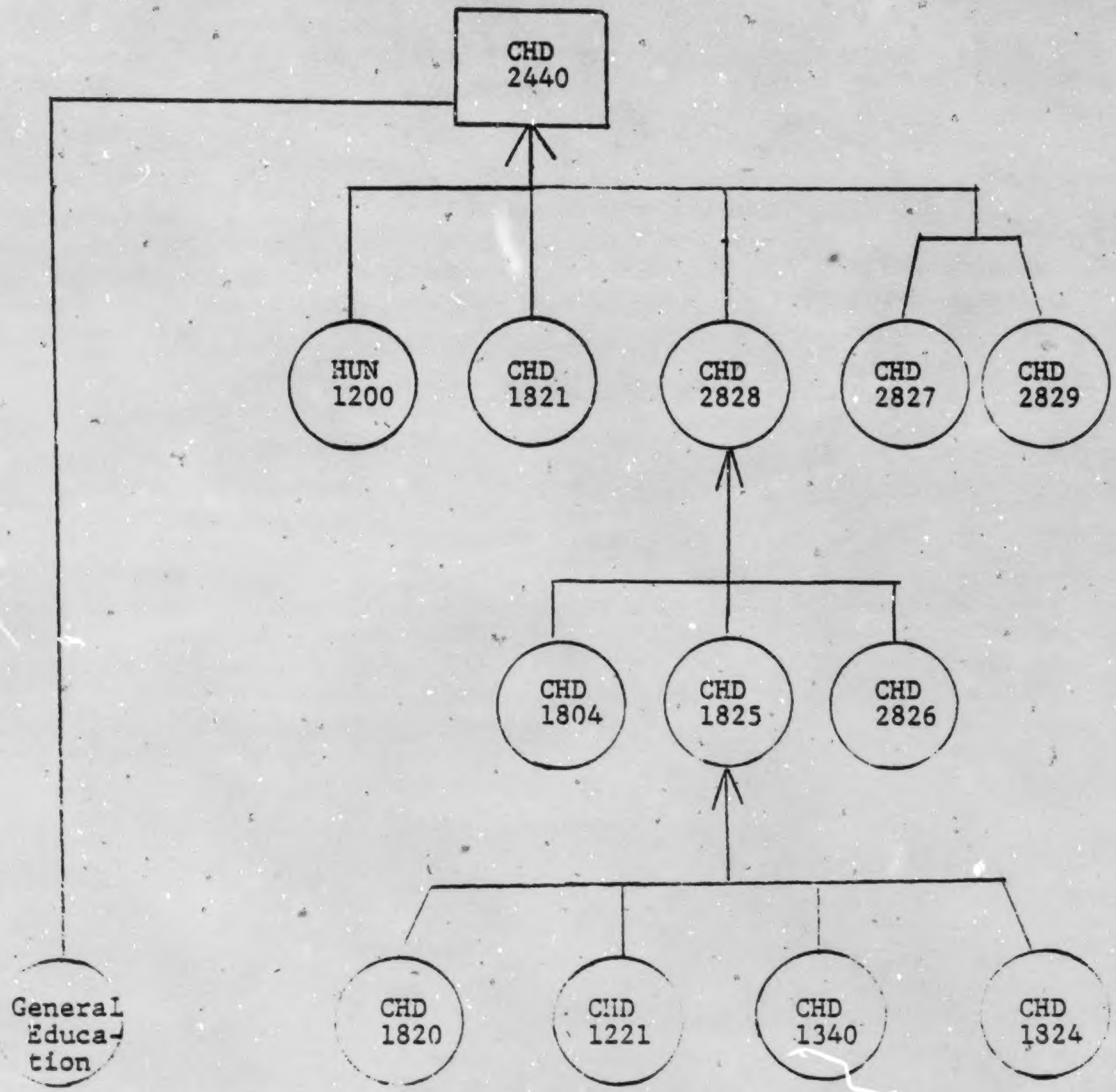
CHILD CARE PROGRAM

PENSACOLA JUNIOR COLLEGE

HOME ECONOMICS DEPARTMENT


CHD 2440
HUN 1200
CHD 1821
CHD 2828
CHD 2827
CHD 2829
CHD 1804
CHD 1825
CHD 2826
General Education
CHD 1820
CHD 1221
CHD 1340
CHD 1824

Prepared by:

Ann Southerland
Assistant Professor
Home Economics Department
Pensacola Junior College

CHILD CARE PROGRAM

MAJOR LEARNING OUTCOMES

CHD 2440 Supervised Practicum (3 Credit Hours)

Given a field experience setting with the responsibility for a group of young children in a preschool or child care setting, each of the following learning outcomes should occur:

1. The student will manage the children in the classroom. To be rated satisfactory, the student must provide a routine, set limits and rules and keep necessary records for the developmental level of the children.

2. The student will plan and carry out activities. To be rated satisfactory, the student must plan and carry out activities that promote develoment of the children in the following areas: physical, intellectual, emotional and cognitive.

3. The student will arrange an appropriate classroom environment. To be rated satisfactory, the student must arrange environment appropriate for the developmental level of the children.

4. The student will demonstrate behaviors and provide activities that promote self concept and independence of each child in the group. To be rated satisfactory, the student must provide positive reinforcement, demonstrate caring behaviors, and allow each child to be independent appropriate for his developmental level.

5. The student will demonstrate positive and productive relationships with parents and other staff members of the center. To be rated satisfactory, the student must encourage parent participation in center activities and work cooperatively with other staff members in center plans, activities, policies and rules.

CHD 2828 Teaching Young Children (3 Credit Hours)

1. Given an example of a child care setting, the student will describe the management functions. To be rated satisfactory, the student must include laws and regulations of licensing, staffing and personnel practices, budgeting processes, planning and maintaining physical plant, food and transportation servies, record keeping and in-service training.

2. Given written tests, the student should be able to describe the purposes of professional organizations, list organizations for teachers of young children, and identify the publications of organizations.

3. Given written tests, the student will describe a theory of instruction. To be rated satisfactory, the student must describe the rationale, teaching strategies, and teaching techniques and their relationships.

4. Given written tests, the student will describe factors in planning a lesson and organizing the environment to insure that goals for children are reached.

5. Given resources, the student will write a long-range curriculum plan for a designated group of children.

6. Given an example of a child care setting, the student will plan a schedule for a child care center. To be rated satisfactory, the schedule should reflect flexibility appropriate for the group of children, needs of the age levels, weather and seasonal considerations.

7. Given a small group of children, the student will teach the group for approximately an hour. To be rated satisfactory, the student must plan activities, arrange the environment, and carry out the activities appropriately for the developmental level of the children.

CHD 2827 Parenthood (3 Credit Hours)

1. Given a procedure and resources, the student will describe methods for communicating with parents and for encouraging parents to participate in center activities.

2. Given a procedure and resources, the student will make a file of materials to be used to teach children about different ethnic groups. To be rated satisfactory, the student must designate the cultural element the materials match and the approximate age for whom they are appropriate.

3. Given resources, plan an activity in which children from different ethnic backgrounds have an opportunity to talk about family customs, foods or holidays.

4. Given written tests, the student will be able to identify and describe the following elements of parenting: motivations for parenthood, parenting roles, changing concepts in parenting, developmental role of parenting, family variations and their effects, and challenges in parenting.

5. Given written tests, the student will describe the socialization process of the child.

6. In a written or oral situation, the student will be able to discuss the parents' position as decision-maker in a child care center's policies.

CHD 2829 Interaction of the Child's World (3 Credit Hours)

1. Given written tests, the student will name and describe specific needs of special groupings of children and their families including handicapped children, emotionally and socially abused children, and economically deprived children.

2. Given written tests, the student will name social concerns relating to children such as divorce, young mother, working mother, migrant children, etc. and will describe their influence on the child and their needs for special services for these children.

3. Given a procedure for carrying out, the student will make a collection of data on community resources for meeting family needs. To be rated satisfactory, the student should include financial, emotional, physical and intellectual needs.

4. Given resources, plan a file of activities to be used in the home or child care center for helping to meet the needs of children needing special services.

CHD 1821 Infancy (3 Credit Hours)

1. Given written tests, the student will name and describe genetic and environmental influences on the prenatal period, predict probable behavioral characteristics in each area of development for each stage of infancy, and describe physical, cognitive, emotional and language needs of the infant at each stage.

2. Either written or orally, the student will describe the role of day care and ways the professional worker can influence the development of the infant.

3. Given a description of infants, the student will plan a program to stimulate infant development. To be rated satisfactory, the student must plan developmentally appropriate activities in the following areas: intellectual, physical, language, and emotional.

4. Given a specific stage of development, the student will make a play material. To be rated satisfactory, the student must make a material appropriate for stage of development and justify its appropriateness.

5. Given a description of a day care setting, the student will plan for the special needs of infants. To be rated satisfactory, the student must plan appropriately for the developmental level of infants included in the program in terms of space, staff, equipment, record keeping, materials and storage.

CHD 2826 Exploration of Media (3 Credit Hours)

1. Given written tests situation, the student will name and describe the developmental stages of art and activities and materials appropriate for each stage.

2. Given written tests, the student will describe the importance of creative and aesthetic experiences for the young child.

3. Given written tests, the student will list learning experiences that will provide children with the opportunity for free expression and individual play. To be rated acceptable, the experience should include found and teacher-made materials.

4. Given the opportunity and availability of particular media used with young children, the student will experience the use of these materials.

5. Given a small group of preschool children, the student will plan and carry out a variety of experiences and media that stimulate children to explore and express their creative abilities. To be rated satisfactory, the student must use experiences and media that are appropriate for the developmental level of the children and present them appropriately.

6. Given resources, the student will build a file of plans for experiences and media that stimulate children to explore and express their creative abilities. To be rated satisfactory, the student must include plans, designate ages or developmental level of children, methods for appropriately presenting and include found and teacher-made materials.

CHD 1804 Introduction to Child Care (2 Credit Hours)

1. Given written tests, the student will name the kinds of child care and describe the specific characteristics of each.

2. Given written tests, the student will be able to describe the status of child care. To be rated satisfactory, the student must include current needs, names of professional groups concerned about child care and current legislative concerns related to child care.

3. Given resources, the student will assess himself or herself in the following areas: academic skills or reading, writing and math needed by a caregiver, and personal development skills of self-understanding, values, openness to, and relationships with, other people, necessary for working with children.

4. Given resources, the student will analyze personal philosophy about children and child care, evaluate personal competencies as a caregiver, and plan career goals.

CHD 1825 Interrelationships of Development (2 Credit Hours)

1. Given a small group of children, the student will assess the level of development for the individual child against a back ground of norms of attainment for the developmental stage. To be rated satisfactory, the student must include strengths and weaknesses and consider opportunities the child has had for development.

2. Given resources, the student will plan a series of activities that would ensure success and challenge to young children through an integrated curriculum of play. To be rated satisfactory, the student must identify the appropriate developmental level for whom the activities are planned.

3. Given written tests, the student will describe the developmental stages of play and the role of play in the development of the child.

4. Given written tests, the student will match appropriate play materials with the developmental level of the child.

5. Given written tests, the student will distinguish between structured and unstructured play activities and materials and describe why each is valuable.

CHD 1820 Physical Needs of Young Child (3 Credit Hours)

1. Given written tests, the student will describe the health and safety needs of young children and how to provide a safe and healthy environment.

2. Given written tests, the student will identify and describe the physical development of the child and describe the role of the adult in meeting these needs.

3. Given resources, the student will make a file of activities to use in teaching health and safety and in promoting motor development. To be rated satisfactory, the student must select materials for different developmental levels for both indoor and outdoor environments and designate level of children using them.

4. Given examples of environments, the student will analyze them in terms of meeting the requirements for a safe and healthy learning environment. To be rated satisfactory, the student must discuss the requirements in relation to the specific group of children using the environment.

5. Given a group of young children, the student will plan and carry out activities that promote physical development. To be rated satisfactory, the student must plan an activity in each area: safety and motor development appropriate for the development of the children.

CHD 1340 Language Development (3 Credit Hours)

1. Given an opportunity to use written and oral language, student will demonstrate ability to serve as a positive language model for children. To be rated satisfactory, student must use appropriate manuscript, spelling, grammar, and punctuation in written language, be able to demonstrate Standard English in oral language, and describe the value of dialectical language.

2. Given resources, student will plan a file of activities that would help children to acquire and use language as a means of communicating their thoughts and feelings to others and as a tool for thinking. To be rated satisfactory, the student must designate level of language development for whom the activity is appropriate and identify materials to be used appropriate for that level.

3. Given a small group of children, student will analyze level of language development, plan and carry out activities that promote language development. To be rated satisfactory, the activities should be appropriate for the level of language development of the children.

4. Given written tests, the student will identify and describe the developmental stages of language development and the role of the adult in meeting those needs.

5. Given resources, the student will make teacher made materials to use for language development and demonstrate how the materials would be used.

CHD 1221 Cognitive Development (3 Credit Hours)

1. Given a small group of children, the student will analyze the cognitive developmental level of each child. To be rated satisfactory, the student must describe specific behaviors and designate developmental level.

2. Given resources, student will select materials for a cognitively oriented curriculum. To be rated satisfactory, the student must describe their use and identify the purpose the materials serves in cognitive development.

3. Given resources, the student will plan activities and experiences that will stimulate cognitive development. To be rated satisfactory the student must designate purpose and appropriate cognitive level and plans should be appropriate for that level.

4. Given a small group of children, student will plan and carry out activities that promote cognitive development. To be rated satisfactory, the student must plan and carry out the activities appropriately for the level of cognitive development of the specific group of children.

5. Given written tests, the student will define certain terms related to cognitive development, identify and describe characteristics of the stages of cognitive development, match materials with appropriate stages, and describe the role of the adult in stimulating cognitive development.

CHD 1824 Emotional Development (3 Credit Hours)

1. Given an opportunity to work with a group of children, the student will demonstrate behavior that promotes emotional development. To be rated satisfactory, the student must demonstrate both verbal and non-verbal behaviors.

2. Given resources, the student will plan a file of activities that would promote emotional development. To be rated satisfactory, the student must designate appropriate level of personality development for the activities and purpose for which the activity will be used.

3. Given a small group of children, the student will analyze level of emotional development, plan and carry out activities that promote emotional development. To be rated satisfactory, the activities should be planned and conducted appropriate for the level of emotional development of the children.

4. Given written tests, the student will identify and describe the factors of personality development and developmental stages of personality, and specify the role of adults in positive emotional development for the child.

5. Given resources, the student will assess his or her emotional development.

CHILD CARE PROGRAM
INTERVIEW RATING SCALE FOR ASSESSING POST GRADUATE PERFORMANCE DATA

Name of Occupation ____________

Location ____________

Person Being Interviewed ____________

Please evaluate the graduate on the performance with the group of children for whom he/she has responsibility.

		ESTIMATE OF PERFORMANCE									
		Inadequate			Satisfactory				Exceeds Requirements		
1.	Has an outline of procedures for providing a safe and healthy environment: indoors, outdoors and involving children	1	2	3	4	5	6	7	8	9	10
2.	Makes or finds materials and equipment to provide an appropriate learning environment and arranges the room appropriately.	1	2	3	4	5	6	7	8	9	10
3.	Demonstrates the appropriate use of materials, equipment, activities and opportunities to promote physical and intellectual development.	1	2	3	4	5	6	7	8	9	10
4.	Demonstrates behaviors and activities that help children use language as a means of communicating their thoughts and feelings and in understanding others.	1	2	3	4	5	6	7	8	9	10
5.	Demonstrates the ability to use a variety of media and experiences that stimulate children to explore and express their creative abilities.	1	2	3	4	5	6	7	8	9	10
6.	Demonstrates behaviors and provides activities that promote self concept and independence of the child	1	2	3	4	5	6	7	8	9	10
7.	Demonstrates the ability to manage the children in the classroom by providing a routine, setting limits and rules and keeping appropriate records.	1	2	3	4	5	6	7	8	9	10
8.	Demonstrates positive and productive relationships with parents. and encourages them to participate in center activities.	1	2	3	4	5	6	7	8	9	10
9.	Demonstrates cooperative relationships with other staff members in regard to the center's plans, activities, policies, and rules	1	2	3	4	5	6	7	8	9	10

PROGRAM: EARLY CHILDHOOD EDUCATION

PROGRAM MANAGER: DR. ANN SOUTHERLAND
DEPARTMENT OF HOME ECONOMICS
PENSACOLA JUNIOR COLLEGE

The Early Childhood Education program is a two-year Associate of Arts curriculum designed to form the basis of a bachelor's degree in Early Childhood Education, or to provide the graduate with the necessary skills to become successfully employed as a teacher aide or assistant in a day-care center, nursery school, or kindergarten. The curriculum consists of both theory and practice, with an emphasis on the theoretical considerations.

Freshman Year

Term I		Term II	
ENC 1103 English Comp.	3 cr.	ENC 1136 English Composition	3 cr.
--- ----- Biology	3	--- -----Biology	3
CHD 1220 Pre-School Child and Family	3	CHD 1332 Creative Experiences	3
FAD 1230 Family Living	3	--- -----Humanities	2
--- ----- Humanities	2	PSY 1000 Psychology or PSY 2012	3
--- ---- Physical Education	1	--- ---- Physical Education	1
STD 1002 Orientation	1		

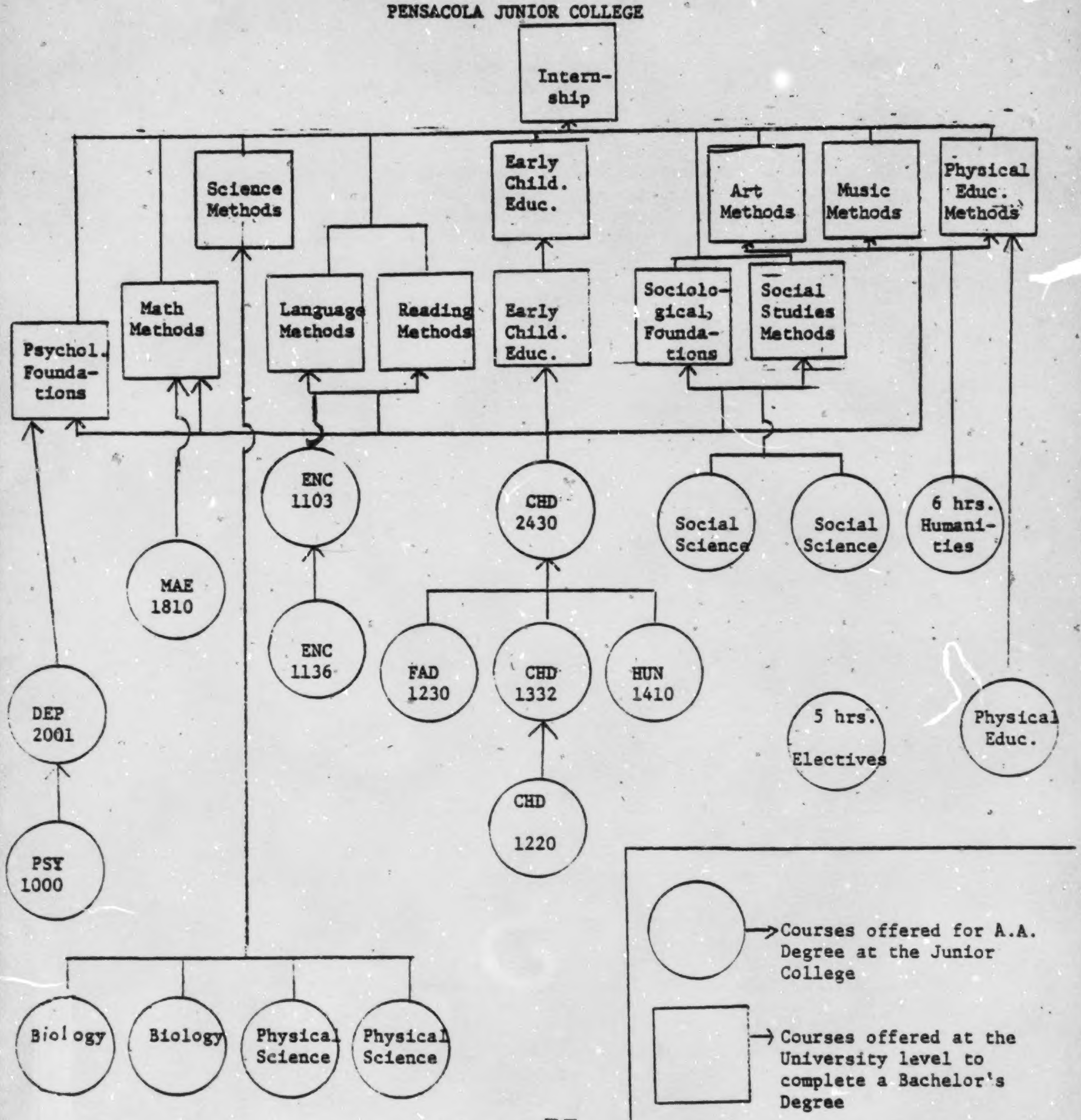
Sophomore Year

Term I		Term II	
MAE 1810 Modern Math	3 cr.	--- -----Physical Science	3 cr.
DEP 2000 Child Psychology or EDP 2002 Ed. Psychology	3	CHD 2430 Pre-School Lab	4
HUN 1410 Child Nutrition	3	--- ----- Social Studies	3
--- ----- Social Studies	3	--- ----- Humanities	2
--- ----- Physical Science	3	--- ----- Elective	5
--- ----- Physical Education	1	--- ----- Physical Education	1

PROGRAM MAP FOR THE EARLY CHILDHOOD PROGRAM

HOME ECONOMICS DEPARTMENT

PENSACOLA JUNIOR COLLEGE


Intern-ship
Science Methods
Early Child. Educ.
Art Methods
Music Methods
Physical Educ. Methods
Math Methods
Language Methods
Reading Methods
Early Child. Educ.
Sociolo-gical, Founda-tions
Social Studies Methods
Psychol. Founda-tions
ENC 1103
CHD 2430
Social Science
Social Science
6 hrs. Humani-ties
MAE 1810
ENC 1136
FAD 1230
CHD 1332
HUN 1410
DEP 2001
5 hrs. Electives
Physical Educ.
CHD 1220
PSY 1000
Biology
Biology
Physical Science
Physical Science
Courses offered for A.A. Degree at the Junior College
Courses offered at the University level to complete a Bachelor's Degree

EARLY CHILDHOOD PROGRAM

MAJOR LEARNING OUTCOMES

CHD 2430 Planning and Participation in a Preschool Lab (3 credit hours)

1. In writing, the student will state a personal philosophy of early childhood education, citing references and experiences which support position.

2. When given a field setting with children, the student demonstrates the role of assistant teacher or teacher aide in a formal program. To be judged satisfactory the student will maintain a diary of experiences and submit an evaluation from field supervisor.

3. When given a field setting with children and a procedure, the student demonstrates careful planning and preparation of instructional activities matching objectives and appropriate developmental needs and interests of the learner, evaluates success appropriately, and keeps appropriate records.

4. In writing, the student demonstrates the ability to read, comprehend, and interpret professional materials.

5. When given an opportunity to work with children in the field setting and the early childhood lab, the student demonstrates enthusiasm for working with the children and belief in the potential of all children, evidenced by interactions with children, involvement in activities with children, and oral comments and concerns about the children.

6. In written tests, the student will evaluate the role of the environment in the young child's behavior and learning; and identify and describe the process of planning instruction for the young child.

7. In class discussion, lab experiences with children, and written tests, the student will demonstrate knowledge of current theories of child development.

8. When given resources, the student demonstrates knowledge of early childhood materials and the ability to arrange them appropriately for young children.

9. Given resources, the student will add additional materials including teaching ideas and materials, professional materials, lists of resources, etc. to the professional resource file.

CHD 1332 Creative and Exploratory Experiences for Young Children (3 Credit Hours)

1. When given resources, the student seeks to increase his or her knowledge and awareness of his or her values, beliefs about children, learning and school. To be judged satisfactory, the student submits evidence in writing.

2. In writing, the student demonstrates evidence of professional reading about early childhood.

3. Given resources, the student will add additional materials including teaching ideas and materials, professional materials, lists of resources, etc. to his or her professional resource file.

4. In writing, the student will demonstrate knowledge of early childhood programs and the status of the field of early childhood education.

5. When given a small group of children in the early childhood lab or a field setting, the student will plan, carry out and evaluate activities appropriate for an early childhood curriculum.

6. When given resources, the student will demonstrate the use of language, play and creative materials and discuss the presentation of the materials to children. To be rated satisfactory, the materials should include purchased and teacher-made materials.

7. Given written tests, the student will be able to describe and evaluate the importance of the early childhood years, requirements for professional preparation in early childhood education, identify curriculum areas, evaluate the role of play, analyze behavioral incidences and make recommendations for guidance, and describe current theoretical considerations in early childhood.

CHD 1220 The Preschool Child and the Family (3 Credit Hours)

1. When given resources, the student seeks to understand own concepts, prejudices and values. To be rated satisfactory, the student submits evidence in writing.

2. Given written tests, the student demonstrates knowledge of human developmental patterns, the effects of genetic and environmental factors which influence the development of the child, current theories of child development, and the role of adults in meeting the child's developmental needs.

3. Given resources, the student will set up a usuable professional resource file that includes professional readings, materials about children, materials and activities to be used with children, child study materials, and lists of resources.

4. Given resources and a procedure to use, the student will demonstrate child study methods by making observations and collecting data using formal and informal methods and submitting evidence of these in writing.

ASSESSMENT PROCEDURES

EARLY CHILDHOOD PROGRAM

Since the Early Childhood Program is not a terminal program, the assessment of success is the student's ability to perform successfully in an early childhood upper level program. Consequently, the evaluation would go to instructors of upper level students.

Name of Methods Course ______________________________

Instructor ______________________________

Please evaluate the following graduate of the community college early childhood program in regard to his or her success in your class.

____

	Estimate of Performance		
	Inadequate	Satisfactory	Excellent
1. Demonstrates the ability to read, comprehend and interpret professional materials.			
2. Demonstrates the ability use planning procedures.			
3. Demonstrates knowledge of child development.			
4. Demonstrates knowledge of early childhood materials.			
5. Is successful in working with field teachers.			
6. Demonstrates knowledge of the arrangements of environments for children.			
7. Demonstrates knowledge of Early Childhood Resources.			
8. Demonstrates enthusiasm for working with children.			
9. Demonstrates the belief of the positive potential of the child.			
10. Demonstrates knowledge of the field of Early Childhood Education.			

Plan of Utilization for Follow-up Evaluation Project

1. Program maps, learning outcomes, and assessment procedures will be shared with the Early Childhood/Child Care Advisory Committee on July 18, 1979.
2. Syllabi for all courses will be revised to reflect more specific learning outcomes. Students will be given copies of the learning outcomes at the beginning of each semester.
3. Program maps will be utilized in counseling students and in appropriate classes to provide students with knowledge of their programs. Program maps will be utilized in helping counselors to counsel students in each of the programs.
4. Program Maps, learning outcomes and assessment procedures will be shared with field people who supervise the students to help them understand the programs and to be more effective with students.
5. Program Maps, learning outcomes and assessment procedures will be used in recruitment of students.
6. Assessment procedures will be utilized to evaluate graduates' performances and the effectiveness of the program.
7. The products will be shared with other department members in order that they might use the process in other phases of the home economics program.
8. The procedures used to design the products will continue to be used to reassess and revise the program in an ongoing evaluation.

PROGRAM: COSMETOLOGY

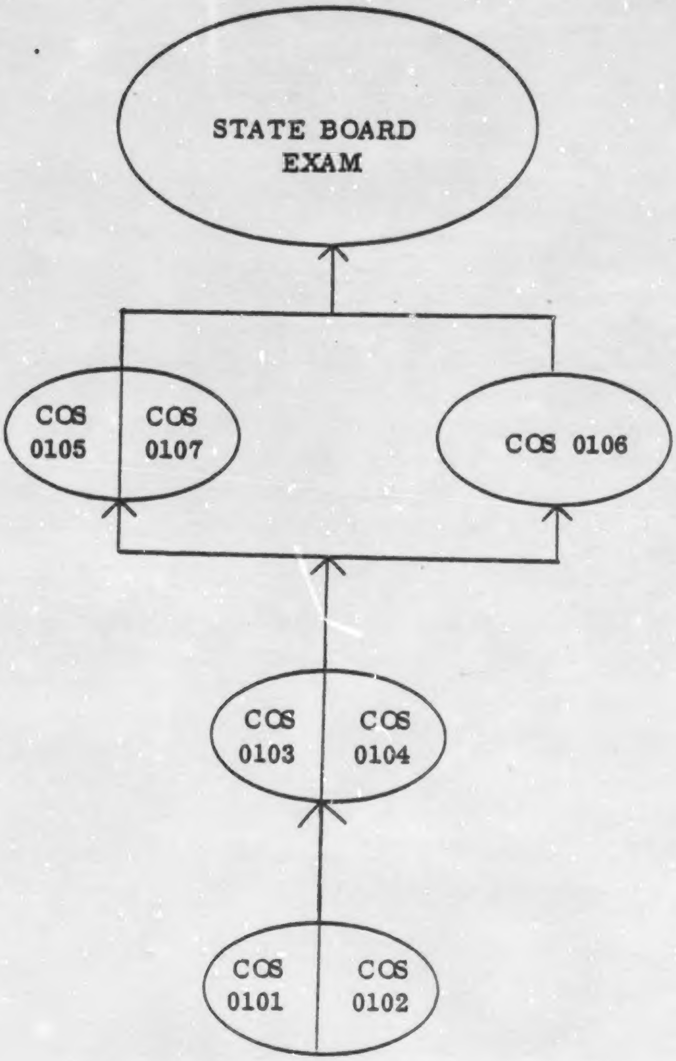
PROGRAM MANAGER: KATIE YATES
DEPARTMENT OF HOME ECONOMICS
PENSACOLA JUNIOR COLLEGE

The one-year program in cosmetology prepares the graduate to take the State Board Examination. After successfully passing the examination, he/she will be qualified for employment in the cosmetic and/or hair industry as a professional team member, demonstrating professional ethics and attitudes.

The graduate will be able to use the proper communication skills to determine the patron's needs for hair and skin care. He/she will be able to execute proper hair and scalp treatments, such as brushing, shampooint, and scalp and hair conditioning. Among the other personal services he/she will be able to provide are hair cutting, permanent waving, chemical straightening, hair coloring, manicuring and pedicuring, skin care, make-up techniques, and eyebrow arching.

An Associate of Science in Cosmetology can be earned after an additional year of formal study which can be on a full-time or part-time basis.

January Class		August Class	
First Term: 16 weeks		First Term: 16 weeks	
COS 0101 Introduction to Cos.	10 cr.	COS 0101 Introduction to Cos.	10 cr.
COS 0102 Skills Laboratory	10	COS 0102 Skills Laboratory	10
Second Term: 12 weeks		Second Term: 12 weeks	
COS 0103 Cosmetology Theory A	8	COS 0108 Cosmetology Theory B	10
COS 0104 Basic Techniques A	8	COS 0109 Basic Tech. B	8
Third Term: 16 Weeks		Third Term: 12 Weeks	
COS 0105 Advan. Theory Tech. A	7	COS 0110 Advan. Theory Tech. B	5
COS 0106 Customer Relation A	3	COS 0106 Customer Relation B	3
COS 0107 Applied Tech. A	10	COS 0111 Applied Tech. B	8


STATE BOARD EXAM
COS 0105
COS 0107
COS 0106
COS 0103
COS 0104
COS 0101
COS 0102

COSMETOLOGY

COSMETOLOGY

January Class

	Technical Credits
Term II - 16 weeks	
COS 0101 - Introduction to Cosmetology. For anyone who meets the admission requirements. To develop awareness, appreciation and understanding of the theoretical principles of cosmetology. To acquaint the student with the importance of Professional Projection and Safety.	10
COS 0102 - Skills Laboratory. Corequisite to COS 0101. To develop an awareness, appreciation and basic understanding of the skills, with good habits of workmanship, safety and sanitation.	10
Term III - 12 weeks	
COS 0103 - Cosmatology Theory II. Prerequisite: COS 0101 and COS 0102. To develop the student's ability and proficient performance of the more advanced techniques, and to further develop awareness and understanding of the theoretical techniques.	8
COS 0104 - Basic Techniques in Cosmetology II. Prerequisite: COS 0101 and COS 0102. Corequisite to COS 0103. to further develop proficient performance in the skills of cosmetology.	8
Term I - 16 weeks	
COS 0105 - Advanced Theory Techniques in Cosmetology II. Prerequisite: COS 0103 and COS 0104. Survey of requisities for state board examination.	7
COS 0106 - Customer Relations. Prerequisite: COS 0103 and COS 0104. Corequisite to COS 0105 and COS 0107. To develop and understand the principles in relation to salon management, advantages of ethical advertising principles. Gain knowledge, understanding of an appreciation for Florida Cosmetology Law.	3
COS 0107 - Applied Techniques in Cosmetology II. Prerequisite: COS 0103 and COS 0104. Corequisite to COS 0104 and COS 0106. To further develop the learned techniques in preparation for working as a professional cosmetologist. The student should be able to perform with evidence of knowledge and proper habits of a beginning senior level student.	10
Total Technical Credits	56

The learning outcomes of Customer Relations are defined in another section. Refer to the Table of Concents, Related Education.

PENSACOLA JUNIOR COLLEGE

Cosmetology

Katie Yates, Instructor

LEARNING OUTCOMES AT EXIT LEVEL

1. Given a patron, the student will be able to use proper communication skills to obtain an accurate patron's skin and hair care history and personal preference profile in order to recognize patrons' needs for hair and skin service.

2. Given a patron, the student will be able to execute proper hair and scalp treatments such as: scientific brushing; shampooing; scalp and hair conditioning with 95% accuracy.

3. Given a patron, the student will be able to execute hair styling technique to patron's face shape and body composition by performing such services as: hair cutting; permanent waving; chemical straightening; rolling and curl ironing with 95% accuracy.

4. Given a patron, the student will be able to perform hair coloring, bleaching and special effects with 95% accuracy.

5. Given a patron, the student will be able to perform manicuring and pedicuring with 95% accuracy to the nails of the hands and feet.

6. Given a patron, the student will be able to perform and demonstrate skin care and make-up techniques to all facial types with 95% accuracy.

7. Given a patron, the student will be able to perform eyebrow arching with 95% accuracy.

Katie Yates
Pensacola Jr. College
Cosmetology

EVALUATION OF PERFORMANCE REQUIRMENTS

The beginning job entry level of a newly licensed Cosmetologist specializing in hair coloring is able to perform the following tasks with 100% accuracy.

Name of Occupation____________________
Location of Interview____________________
Person being interviewed____________________
( ) employer ( ) graduate

	TASKS	ESTIMATE OF PERFORMANCE		
		inadequate	satisfactory	exceeds requirements
1.	communicates the importance of a predisposition test	1 2 3	5 6 7	8 9 10
2.	administers a predisposition test	1 2 3	5 6 7	8 9 10
3.	analysis the results of a predisposition test	1 2 3	5 6 7	8 9 10
4.	analysis the scalp for abrasions	1 2 3	5 6 7	8 9 10
5.	analysis the hair for application of haircoloring	1 2 3	5 6 7	8 9 10
6.	communicates the advantages and disadvantages of selected haircoloring	1 2 3	5 6 7	8 9 10
7.	communicates the affects of selected haircoloring	1 2 3	5 6 7	8 9 10
8.	keeps updated records on patrons selected haircolor	1 2 3	5 6 7	8 9 10
9.	assist patron with color selection	1 2 3	5 6 7	8 9 10
10.	drapes patron for selected hair color properbly	1 2 3	5 6 7	8 9 10
11.	demonstrates safety techniques	1 2 3	5 6 7	8 9 10

12. assembles materials needed for selected hair color	1	2	3	5	6	7	8	9	10
13. mix permanent hair color and lightner properbly	1	2	3	5	6	7	8	9	10
14. demonstrates professional techniques in the application of the selected hair color	1	2	3	5	6	7	8	9	10
15. demonstrates sanitation techniques	1	2	3	5	6	7	8	9	10

Page 67, containing a copy of James E. Althof's Interview Rating Scale for Assessing Post Graduate Performance Data, has been deleted. This scale is copyrighted.

Pensacola Jr. College
Cosmetology

Occupational entry position: HAIR COLORIST

Given a patron the student will be able to:

1. drape the patron for hair coloring treatment with 100% accuracy.
2. analysis the porosity, texture and density of the hair with 100% accuracy.
3. explain the affects of temporary color to the hair with 100% accuracy.
4. apply temporary hair color to the hair with 100% accuracy.
5. select the correct shade of temporary hair color for the hair with 100% accuracy.
6. explain the effects of semipermanent color to the hair with 100% accuracy.
7. select the correct shade of semipermanent color for the hair with 100% accuracy.
8. apply semipermanent color to the hair with 100% accuracy.
9. explain the effects of permanent color to the hair with 100% accuracy.
10. administer a 24 hour patch test with 100% accuracy prior to the application of a permanent hair color.
11. mix permanent hair color with the proper volume of hydrogen peroxide for the porosity of the hair with 100% accuracy.
12. apply a virgin color with 100% accuracy.
13. demonstrate sanitation techniques with 100% accuracy.
14. demonstrate safety techniques with 100% accuracy.

Katie Yates
Pensacola Jr. College
Cosmetology

Hair Colorist

ACTION VERB	FOCUS	CRITERIA
1. administer/analysis/communicate	predisposition test	100% accuracy
2. analysis	porosity, texture and density of hair	100% accuracy
3. analysis	scalp for abrasions	100% accuracy
4. communicate	affects of temporary, semi-permanent,permanent, lightening and special effects	100% accuracy
5. communicate	advantages and disadvantages of selected hair color	100% accuracy
6. perform	record keeping procedures	100% accuracy
7. assist/describe	color selection,relationship of skin tone and ages to shades of haircolor	100% accuracy
8. drape	patron for haircoloring treatment	100% accuracy
9. demonstrate	safety techniques	100% accuracy
10. assemble	materials	100% accuracy
11. mix	permanent haircolor and lightner with proper volume of hydrogen peroxide	100% accuracy
12. demonstrate	application of selected hair color	100% accuracy

Katie Yates
Pensacola Jr. College
Cosmetology

Occupational entry position; SHAMPOOER

Given a patron in normal salon conditions the licensed shampoo technician will be able to;

1. drape the patron for a shampoo with 100% accuracy.

2. perform a scientific brushing to the hair and scalp with 100% accuracy.

3. analysis the texture, elasicity, and density of the hair with 100% accuracy

4. analysis the scalp for abrasions with 100% accuracy.

5. communicate the choice of the proper shampoo selection for the hair with 100% accuracy.

6. adjust the shampoo chair to comfortably seat the patron for a shampoo with 100% accuracy.

7. perform wetting techniques to the hair with 100% accuracy.

8. apply shampoo to the entire hair with 100% accuracy.

9. perform scientific manipulations to the scalp with 100% accuracy.

10. complete the cleansing of the hair by performing rinsing techniques with 100% accuracy.

11. demonstrate towel drying techniques with 100% accuracy.

12. demonstrate safety techniques with 100% accuracy.

13. demonstrate sanitation techniques with 100% accuracy.

Katie Ya[redacted]
Pensacola Jr. College
Cosmetology

Shampooer

ACTION VERB	FOCUS	CRITERIA
1. drape	patron for a shampoo	100% accuracy
2. perform	scientific brush to hair and scalp	100% accuracy
3. analysis	texture, elasicity and density of the hair	100% accuracy
4. analysis	scalp for abrasions	100% accuracy
5. communicate	proper shampoo selection	100% accuracy
6. adjust	shampoo chair	100% accuracy
7. perform	wetting techniques	100% accuracy
8. apply	shampoo to entire head	100% accuracy
9. perform	scientific manipulations to the scalp	100% accuracy
10. performing	rinsing techniques	100% accuracy
11. demonstrate	towel drying techniques	100% accuracy
12. demonstrate	safety techniques	100% accuracy
13. demonstrate	sanitation techniques	100% accuracy

Katie Yates
Cosmetology

Utilization of Project

1. Program map and exit level outcomes to be used in Catalouge and as a tool by councelors and program instructors for program information.
2. Learning outcomes of program to be used by begining students for goal setting, expectations of program completion and instruction.
3. Evaluation of performance will be used to review and constantly improve program materials, learning and teaching techniques.
4. Job entry level positions to be used by student in specialized area, such as, shampooing and haircoloring.

PROGRAM: DENTAL HYGIENE

PROGRAM MANAGER: B. JOAN ZIEL
DEPARTMENT OF DENTAL HEALTH
PENSACOLA JUNIOR COLLEGE

The two-year program terminates with an Associate of Science in Dental Hygiene. The graduate is eligible to take the National Boards and the State Board examinations. Upon successful completion of the licensing examination, he/she is qualified to begin employment as a dental hygienist in a private or public dental health-care facility.

Freshman Year

Term I

ENC 1103	English Composition	3 cr.
CHM____	Chemistry	3
DES 1001	Head & Neck Anatomy	2
DES 1002	Tooth Morphology	1
DEH 1000	Dental Hygiene	2
DEH 1000L	Clinic	3
APB 1190	Anatomy & Physiology	3
APB 1190L	Anatomy & Phy. Lab	1

Term II

DEH 1600	Periodontis	1 cr.
DEH 1800	Dental Hygiene	1
DEH 1800L	Hygiene Clinic	4
DEH 2120	Histology	2
DEH 2503	Dental Materials	3
DES 1200	Radiology	2
APB 1170	Microbiology	4

Term III-A

HUN 1001	Nutrition	3 cr.
DEH 1803	Clinic	1
DEH 1505	Expanded Functions	2

Sophomore Year

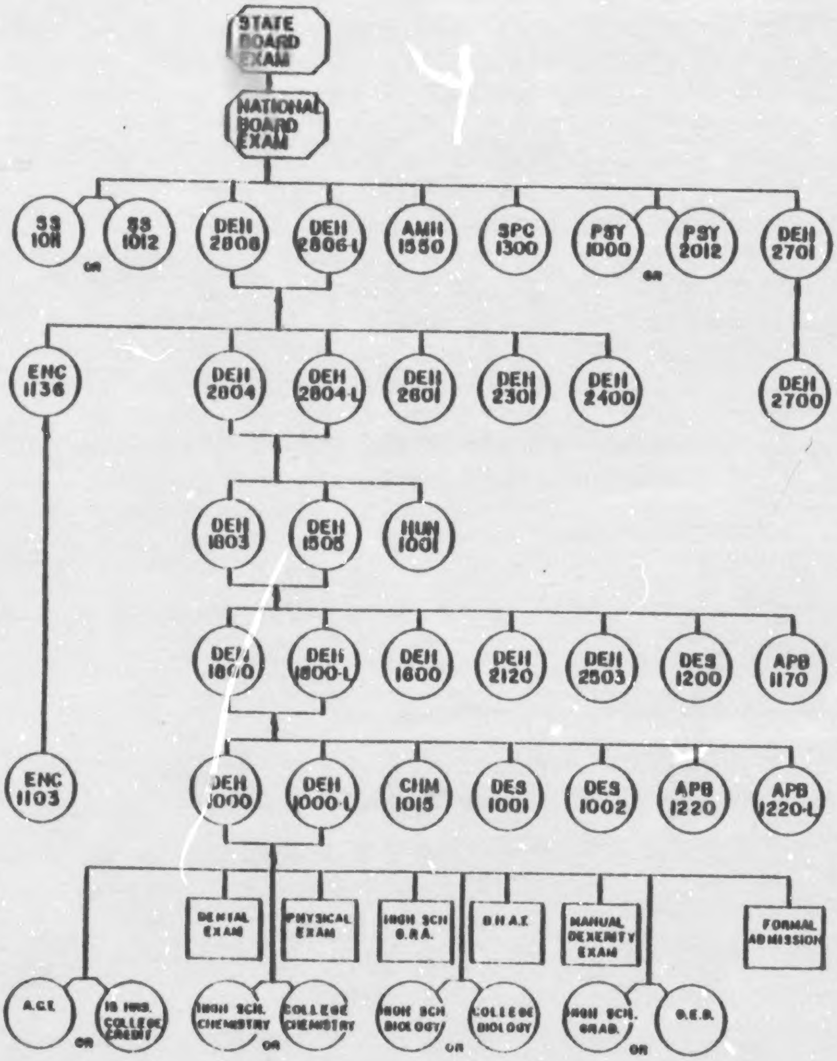
Term I

ENC 1136	English Composition	3 cr.
DEH 2301	Pharmacology	2
DEH 2400	Pathology	2
DEH 2301	Periodontology	1
DEH 2700	Dental Health Ed.	2
DEH 2804	Dental Hugiene	2
DEH 2804L	Hygiene Clinic	6

Term II

--- -----	Social Studies	3 cr.
SPC 1300	Speech	3
AMH 1550	Constitution	1
PSY 2012	General Psychology	3
DEH 2701	Dental Health	1
DEH 2806	Dental Hygiene	1
DEH 2806L	Hygiene Clinic	6

PENSACOLA JUNIOR COLLEGE
DENTAL HYGIENE PROGRAM



STATE BOARD EXAM
NATIONAL BOARD EXAM
SS 1011
OR
SS 1012
DEH 2806
DEH 2806-L
AMH 1550
SPC 1300
PSY 1000
OR
PSY 2012
DEH 2701
ENC 1136
DEH 2804
DEH 2804-L
DEH 2601
DEH 2301
DEH 2400
DEH 2700
DEH 1803
DEH 1505
HUN 1001
DEH 1800
DEH 1800-L
DEH 1600
DEH 2120
DEH 2503
DES 1200
APB 1170
ENC 1103
DEH 1000
DEH 1000-L
CHM 1015
DES 1001
DES 1002
APB 1220
APB 1220-L
DENTAL EXAM
PHYSICAL EXAM
HIGH SCH G.P.A.
D.H.A.T.
MANUAL DEXERITY EXAM
FORMAL ADMISSION
A.C.T.
OR
15 HRS. COLLEGE CREDIT
HIGH SCH. CHEMISTRY
OR
COLLEGE CHEMISTRY
HIGH SCH BIOLOGY
OR
COLLEGE BIOLOGY
HIGH SCH. GRAD.
OR
G.E.D.

Dental Hygiene

Pensacola Junior College

Program Goals

1. The student is prepared to take the National Board Dental Hygiene Examination which is a prerequisite for taking a state practical board examination for licensure as a registered dental hygienist.

2. The student is eligible after passing the National Board, to take a board examination in any state for licensure as a registered dental hygienist.

3. The student is prepared for employment in any dental office, public health facility, hospital, public institution or school system where registered dental hygientists are employed.

4. The student is prepared for taking her place on the professional dental health team demonstrating proper professional conduct, attitude, and high ethical moral standards.

5. The student is a registered hygienist with an A.S. Degree and is prepared to successfully pursue a B.S. Degree at a higher institution.

LEARNING OUTCOMES AT EXIT LEVEL
DENTAL HYGIENE PROGRAM

1. Given a dental patient, the student will be able to use proper communication skills, to establish rapport with the patient, obtain an accurate health and dental history, identify potential need for premedication and recognize any contraindications for treatment with 100 per cent accuracy.

DEH 2806	Dental Hygiene Lecture
DEH 2806L	Dental Hygiene Clinic

2. Given a dental patient, the student will be able to accurately perform a thorough oral inspection, identify and record oral conditions and recognize any deviations from the normal with 100 per cent accuracy.

DEH 2806	Dental Hygiene Lecture
DEH 2806L	Dental Hygiene Clinic

3. Given a dental patient, the student will be able to use proper fulcrum and instrumentation technique to locate and remove all soft and hard deposits from the tooth surfaces and thoroughly polish the dentition with 98 per cent accuracy.

DEH 2806	Dental Hygiene Lecture
DEH 2806L	Dental Hygiene Clinic

4. Given a dental patient, the student will be able to properly perform a fluoride treatment and take accurate dental X-rays with 100 per cent accuracy.

DES 1200	Radiology
DEH 2806L	Dental Hygiene Clinic

5. Given a dental patient, individuals for whom oral health education is indicated, the student will be able to identify the patient's individual dental health needs, determine patient's educational level, attitudes toward oral health, and dietary habits to accurately plan oral health instruction on an individualized basis with 100 per cent accuracy.

DEH 2806	Dental Hygiene Lecture
DEH 2806L	Dental Hygiene Clinic

6. Given a dental office setting, the student is prepared to take her place on the dental health team demonstrating proper professional conduct, attitude, and high ethical and moral standards.

DEH 2806L	Dental Hygiene Clinic

Major Learning Outcomes
Dental Hygiene Program
Pensacola Junior College

Joan Ziel

Course	Learning Outcomes
DEH 1000 2 Credits Pre-Clinic Instrumentation	1. The dental hygiene student will describe in writing the theory of decay and list the components in the decay process with 100% accuracy. 2. The dental hygiene student will identify, describe and explain in writing with 100% accuracy the various soft and hard deposits found on tooth surfaces and their significance to the dental disease process. 3. Given a complete set of oral hygiene instruments, the dental hygienist will be able to identify and explain the proper design, function and utilization of each in scaling and polishing tooth surfaces with 98% accuracy
DEH 1000-L 3 Credits Freshman Clinic	1. Given a dental mannequin and armamentarium, the dental hygiene student will demonstrate with 98% accuracy proper instrumentation techniques used in performing an oral prophylaxis. 2. Given a dental patient and the necessary armamentarium, the dental hygiene student will properly demonstrate with 98% accuracy the fundamental skills necessary for performing an oral prophylaxis, and providing plaque control education for dental disease prevention.
DES 1001 2 Credits Head and Neck Anatomy	1. Given a human skull, the dental hygiene student will describe and locate the bones, foramina, sutures and fossae with 90% accuracy. 2. Given an anatomical picture of the head and neck, the dental hygiene student will with 90% accuracy be able to locate, identify and explain the function of the major muscles, blood vessels and nerves of the head and neck.

Course	Learning Outcomes
DES 1002 1 Credit Tooth Morphology	1. Given a block of wax and essential carving instruments, the dental hygiene student should be able to carve to exact scale any tooth in the human dentition which will include all aspects of dental anatomy characteristic of that tooth. This should be performed with 90% accuracy. 2. Given various human extracted teeth, the dental hygiene student should be able to identify the correct position, number, and arch relationship of any tooth in the human dentition with 95% accuracy.
DEH 1800 1 Credit Freshman Dental Hygiene Lecture	1. The dental hygiene student will describe and explain in writing the fluoridation process and list the steps for performing this procedure properly with 100% accuracy. 2. The dental hygiene student will identify and explain in writing with 98% accuracy, the steps necessary to create, develop and implement a plaque control program in a routine dental office environment.
DEH 1800-L 4 Credits Freshman Dental Hygiene Clinic	1. Given a patient and the necessary armamentarium, the dental hygiene student will be able to take and record the vital signs of a child or adult with 100% accuracy. 2. The dental hygiene student will be able to perform a complete case study on an average dental patient including bacterial smears, living smears, radiographic series, Snyders tests, nutritional counseling, periodontal charting, OHI indices, impressions and study casts. An analysis of patients oral hygiene status in relation to test performed will be submitted in writing.

Course	Learning Outcomes
DEH 1600 1 Credit Periodontia	1. The dental hygiene student should be able to identify, list and explain the various components of the periodontium and the relationship among the various structures with 100% accuracy. 2. Each dental hygiene student should be able with 98% accuracy to list and explain the various symptoms and stages of development of periodontal disease and the recommended therapy for prevention and treatment.
DEH 2120 2 Credits Histology	1. The dental hygiene student should with 95% accuracy be able to describe the development of the oral and facial structures. 2. Each dental hygiene student should be able to list and describe the composition, structure and function of the enamel, dentin, cementum, pulp, periodontal ligament and alveolar process. This should be done with 100% accuracy.
DEH 2503 3 Credits Dental Materials	1. Given a normal dental laboratory environment, the dental hygiene student should with 98% accuracy be able to identify, mix, and explain the effects of contamination on all restorative dental materials. 2. Given all essential materials in a dental laboratory situation, the dental hygiene student should be able to properly mix, pour up and trim plaster or stone study models with 98% accuracy.
DES 1200 2 Credits Radiology	1. Given a dental patient in a routine dental office environment, the dental hygiene student with 98% accuracy will be able to expose, process, mount, and evaluate for quality radiographic projections with density, definition and contrast that are of diagnostic value to the dentist. 2. Each dental hygiene student should with 100% accuracy describe all the different radiation hazards and methods of prevention.

Course	Learning Outcomes
DEH 1803 1 Credit Summer Term Clinic	1. Given an average dental patient, the student will properly secure and process with 95% accuracy a living smear which w[illegible] be viewed under a phase microscope with the patient as its significance to plaque control therapy is explained. 2. Given a patient for whom the procedure is indicated, the student will properly polish an amalgam restoration with 100% accuracy using the necessary burs, tin oxide and other armamentarium.
DEH 1510 2 Credits Expanded Functions	1. Given a dental mannequin and the essential materials, the student should properly place and remove a rubber dam on any area in the oral cavity with 100% accuracy. 2. Given a dental patient and essential material the student must properly take oral impressions with 100% accuracy. 3. Given all essential materials and a patient, the student must secure, fix and stain bacteriological samples, with 100% accuracy. 4. Provided all essential materials, the student must correctly place and remove a matrix band and wedge on a dental mannequin with 100% accuracy.
DEH 2804 2 Credits Sophomore Dental Hygiene Lecture	1. The dental hygiene student will be able to identify in writing periodontal conditions in the oral cavity and list proper oral hygiene procedures for preventive therapy with 100% accuracy. 2. Given the routine dental equipment setting, the dental hygiene student will identify and explain the proper care and uses of all equipment in a normal dental office environment with 95% accuracy.

Course	Learning Outcomes
DEH 2804-L 6 Credits Sophomore Dental Hygiene Clinic	1. Given a dental patient in a routine dental environment, the dental hygiene student will be able to apply the fundamental principles of preventive dentistry and demonstrate advanced techniques of oral prophylaxis to meet the dental health needs of the patient. 2. Given an average dental patient and necessary equipment, the dental hygiene student will demonstrate with 100% accuracy the proper procedure and technique used in ultrasonic instrumentation.
DEH 2601 1 Credit Periodontology	1. The dental hygiene student will define in writing with 98% accuracy the significance of the various etiological factors involved in periodontal disease. 2. The dental hygiene student will be able to list the necessary armamentarium and procedures used in the treatment and prevention of periodontal disease with 100% accuracy.
DEH 2301 2 Credits Pharmacology	1. Given a list of drugs used in dentistry, the dental hygiene student must be able to explain the uses and contra-indications for use of commonly used drugs with 100% accuracy. 2. Given a list of various dental office emergencies, the dental hygiene student will accurately explain the procedures and drugs indicated for each situation with 98% accuracy.
DES 2400 2 Credits Pathology	1. Given a dental patient, the dental hygiene student should be able to recognize abnormal lesions and note any deviations from normal in the oral cavity with 100% accuracy. 2. Given various pictures of anomalies, the dental hygiene student should be able to identify and descrive developmental abnormalities of the soft tissues, tongue, jaws and related structures with 95% accuracy.

Course	Learning Outcomes
DEH 2700 2 Credits Dental Health Education	1. Given a normal classroom environment, the dental hygiene student will demonstrate proficiency in the preparation and presentation of a table clinic with 95% accuracy. 2. Given various community health agencies to visit, the dental hygiene student will with 100% accuracy, demonstrate her skills as an oral health educator on the dental health team.
DEH 2806 1 Credit Sophomore Dental Hygiene Lecture	1. Given a list of dental specialties, including Pedodontia, Orthodontia, Oral Surgery, Anesthesiology, Operative Dentistry, Prosthodontia, and Periodontia, the dental hygiene student will define each and explain in writing with 98% accuracy, the significance of interaction among the various specialties. 2. Each dental hygiene student will be able to list and explain with 100% accuracy the communication skills necessary for good interpersonal relationships.
DEH 2806-L 6 Credits Sophomore Dental Hygiene Clinic	1. Given a dental patient for whom these procedures are indicated, the dental hygiene student will properly perform with 95% accuracy root planing and soft tissue curettage techniques under the supervision of the periodontist. 2. Given a patient for whom the procedure the procedure is indiciated and necessary armamentarium, the dental hygiene student will recommend desensitization procedures and properly perform such procedures with 100% accuracy..
DEH 2701 1 Credit Dental Health Education	1. Given a normal classroom environment, the dental hygiene student will demonstrate with 95% accuracy proficiency in the preparation and use of various audio visual aids. 2. Given a population target, the dental hygiene student will with 95% accuracy, conduct, analyze and interpret a dental survey.

Prepared by Joan Ziel

MAJOR LEARNING OUTCOMES

Exit Level

Dental Hygiene Program

Pensacola Junior College

LEARNING OUTCOMES	COURSES WHERE ASSESSED
1. Given a routine dental office environment, the dental hygienist will use proper communication skills to establish rapport with patients, obtain accurate health and dental histories, identify potential need for premedication and recognize any contraindications for treatment with 100% accuracy.	DEH 1000 and DEH 1000-L Freshman Dental Hygiene Lecture and Clinic DEH 1800 and DEH 1800-L Freshman Dental Hygiene Lecture and Clinic DEH 2804 and DEH 2804-L Sophomore Dental Hygiene Lecture and Clinic DEH 2806 and DEH 2806-L Sophomore Dental Hygiene Lecture and Clinic
2. Given a dental patient in a routine office environment, the dental hygienist will accurately perform a thorough oral inspection, identify and record oral conditions, and recognize any deviations from normal with 100% accuracy.	DEH 1000 and DEH 1000-L Freshman Dental Hygiene Lecture and Clinic DEH 1600 - Periodontia DEH 1800 and DEH 1800-L Freshman Dental Hygiene Lecture and Clinic DEH 2400 - Pathology DEH 2601 - Periodontology DEH 2804 and DEH 2804-L Sophomore Dental Hygiene Lecture and Clinic DEH 2806 and DEH 2806-L Sophomore Dental Hygiene Lecture and Clinic
3. Given an average dental patient in a routine dental office environment, the dental hygienist will use proper fulcrum and instrumentation techniques to locate and remove all soft and hard deposits from tooth surfaces and thoroughly polish the dentition in a routine appointment schedule with 100% accuracy.	DEH 1000 and DEH 1000-L Freshman Dental Hygiene Lecture and Clinic DEH 1800 and DEH 1800-L Freshman Dental Hygiene Lecture and Clinic DEH 2804 and DEH 2804-L Freshman Dental Hygiene Lecture and Clinic DEH 2806 and DEH 2806-L Freshman Dental Hygiene Lecture and Clinic

LEARNING OUTCOMES	COURSES WHERE ASSESSED
4. Given a dental patient in a routine dental office environment, the hygienist will properly expose, develop and mount radiographs with 100% accuracy.	DES 1200 - Radiology DEH 1000 and DEH 1000-L Freshman Dental Hygiene Lecture and Clinic DEH 1800 and DEH 1800-L Freshman Dental Hygiene Lecture and Clinic DEH 2804 and DEH 2804-L Sophomore Dental Hygiene Lecture and Clinic DEH 2806 and DEH 2806-L Sophomore Dental Hygiene Lecture and Clinic
5. Given a dental patient in a regular dental office environment, the dental hygienist will identify the patients' individual dental health needs, determine the patients' educational level, attitudes toward dental health and dietary habits to accurately plan oral health instruction on an individualized basis with 100% accuracy.	HUN 1001 - Nutrition DEH 1800 and DEH 1800-L Freshman Dental Hygiene Lecture and Clinic DEH 2804 and DEH 2804-L Sophomore Dental Hygiene Lecture and Clinic DEH 2806 and DEH 2806-L Sophomore Dental Hygiene Lecture and Clinic

This questionnaire asks you to consider the performance requirements of a beginning level registered dental hygienist that you would employ in your office upon her graduation from an accredited dental hygiene school and upon her passing national and state board examination requirements.

Your task is to respond to each statement in terms of how frequently you actually require your hygienist to perform each task given. You are to choose the number on the following scale that most closely approximates the frequency of performance in your office.

Routinely	Occasionally	Never
1	2	3

Routinely -- indicates your hygienist performs these functions daily in your office

Occasionally -- indicates your hygienist performs these functions only occasionally or sometimes.

Never -- indicates these functions are performed by other personnel in your office.

Prepared by Joan Ziel
Pensacola Junior College

In a routine dental office environment, I would expect my dental hygienist to perform the following tasks with 95 percent accuracy.

		(Circle Rating)		
		Routinely R	Occasionally O	Never N
1.	Use proper communication skills to establish rapport with patients.	1	2	3
2.	Obtain an accurate dental and health history on patients.	1	2	3
3.	Perform a thorough oral inspection, identify and record deviations from normal.	1	2	3
4.	Perform a thorough oral prophylaxis and properly polish the dentition.	1	2	3
5.	Perform root planing and soft tissue curettage procedures.	1	2	3
6.	Prepare routine living bacterial smears and relate to patients oral hygiene.	1	2	3
7.	Prepare fixed bacterial smears and relate to patients oral hygiene.	1	2	3
8.	Properly mix and administer a fluoride treatment for child or adult patients.	1	2	3
9.	Accurately expose radiographs.	1	2	3
10.	Properly develop and mount radiographs.	1	2	3
11.	Recognize landmarks, lesions, and anomalies from radiographs.	1	2	3

(Circle Rating)

	Routinely R	Occasionally O	Never N
12. Identify individual dental health needs and plan a personal oral hygiene regime for each patient.	1	2	3
13. Provide nutritional counseling on an individualized basis for patients.	1	2	3
14. Administer a topical anesthetic.	1	2	3
15. Properly take alginate impressions of the oral cavity.	1	2	3
16. Place and remove periodontal dressings.	1	2	3
17. Pour up and finish study models accurately on patients.	1	2	3
18. Place and remove matrix bands.	1	2	3
19. Properly polish amalgam restorations.	1	2	3
20. Place and remove a rubber dam on child or adult.	1	2	3
21. Properly dental chart a patient.	1	2	3
22. Place and remove temporary restorations.	1	2	3
23. Accurately chart a patient's periodontal status.	1	2	3
24. Perform routine dental assisting procedures.	1	2	3

		(Circle Rating)		
		Routinely R	Occasionally O	Never N
25.	Perform routine record-keeping functions in the dental office.	1	2	3
26.	Place, carve, and finish amalgam restorations.	1	2	3
27.	Remove surgical sutures.	1	2	3
28.	Accurately establish and update a recall system for patients.	1	2	3
29.	Be actively involved in her professional organization and continuing educational development.	1	2	3
30.	Accept her place as a member of the dental health team, working in cooperation with other team members.	1	2	3
31.	Demonstrate ethical professional demeanor in interpersonal relationships.	1	2	3

DENTAL HYGIENIST ENTRY-LEVEL PERFORMANCE REQUIREMENTS

1. Given a dental patient, a registered dental hygienist will use proper communication skills to establish rapport with patients, to obtain accurate health and dental history, and to identify potential need for premedication or contraindication for treatment with 100 percent accuracy.

2. Given a dental patient, a registered dental hygienist will perform a thorough oral inspection, identify and record any deviations from normal with 100 percent accuracy.

3. Given a dental patient, a registered dental hygienist will use proper fulcrum and instrumentation techniques to locate and remove all soft and hard deposits from the tooth surfaces, and thoroughly polish the dentition with 98 percent accuracy.

4. Given a dental patient, a registered dental hygienist will properly perform root planint and soft tissue curettage procedures when indicated with 95 percent accuracy.

5. Given a dental patient, a registered dental hygienist will properly mix and administer a fluoride treatment for child or adult patient with 100 percent accuracy.

6. Given a dental patient, a registered dental hygienist will accurately expose and develop radiographs of the oral cavity, recognize landmarks, lesions, and anamolies with 97 percent accuracy.

7. Given a dental patient, a registered dental hygienist will identify individual dental health needs and plan a personal oral hygiene program on an individualized basis for adults and children with 100 percent accuracy.

8. Given a dental patient, a registered dental hygienist will determine patient's educational level, attitudes toward dental health, and dietary habits to provide nutritional counseling for children and adults with 100 percent accuracy.

9. Given a dental patient, a registered dental hygienist will properly take alginate impressions of the oral cavity and pour up and finish study models with 100 percent accuracy.

10. Given a dental office setting, the registered dental hygienist will perform properly any expanded function for which she has been properly trained and which are allowed by state law with 100 percent accuracy.

11. Given a dental office setting, the registered hygienist will assist the dentist by performing routine dental assisting procedures when available with 98 percent accuracy.

12. Given a dental office setting, the registered hygienist will assist the dentist by performing routine dental assisting procedures when available with 98 percent accuracy.

13. Given a dental office setting, the registered dental hygienist will accept her place as a member of the dental health team working in cooperation with other team members in the dental office with 100 percent accuracy.

14. Given a dental office setting, a registered dental hygienist will be actively involved with her professional organization and further educational development through continuing education participation with 100 percent accuracy.

DENTAL HYGIENIST

Action Verb	Focus	Criteria
Use	Proper communication skills with patients, colleagues, public	100% accuracy
Establish	Rapport with patients	
Obtain	Accurate health histories	100% accuracy
Identify	Need for premedication	
Perform	Oral inspection	
Identify/Record	Deviations from normal	100% accuracy
Use	Correct instrumentation technique	
Remove	Soft and hard deposits	98% accuracy
Polish	Dentition	
Perform	Root planing and curettage procedures	95% accuracy
Mix/Administer	Fluoride treatment for adult or child patient	100% accuracy
Expose/Develop	Radiographs	97% accuracy
Recognize -	Landmarks, lesions from radiographs	97% accuracy
Identify/Plan	Individual dental health needs and personal oral hygiene for child or adult patient	100% accuracy
Determine Provide	Patient's educational level, attitudes, and dietary habits--Nutritional counseling for child or adult dental patient	100% accuracy
Take	Accurate alginate impressions of oral cavity	100% accuracy
Pour up/Finish	Study models	100% accuracy
Perform	Expanded functions allowed by state law	100% accuracy
Assist	Dentist with routine operative and specialty procedures	98% accuracy
Perform	Office procedures--recordkeeping, appointment scheduling, recall system	100% accuracy

PAGES 92 and 93 NEVER EXISTED IN THE ORIGINAL DOCUMENT

Action Verb	Focus	Criteria
Work	Cooperatively as a team member	100% accuracy
Participate	In continuing educational development through professional organization	100% accuracy

UTILIZATION OF PROJECT

This has without a doubt been the most useful, practical workshop I have had the privilege of being involved in. Even before the project ended, I have had many occassions in which I have used various materials developed in the workshop. It was a nice feeling to create something that could be brought back and used with students, faculty and personnel from other colleges in various stages of competency-based programs.

The development of a program map for dental hygiene education has proved to be the most useful tool developed inthe workshop. It will be used in the college catalog, hopefully. It is an excellent resource for counselors as well as students. Our entire department has been impressed with the program map and has used it many times.

The learning outcomes of the program will be excellent program directives for freshmen dental hygiene students. I firmly believe they will enable our faculty to see the ultimate goals more clearly and to develop our curriculum in such a way that the learning needs of students will be the priority.

The Job-Entry-Level Competencies will enable us to develop a more realistic curriculum designed to equip the students with the skills and competencies employers expect of them. There has long been a discrepency in what employers feel students should be able to perform on the job and the skills required in the classroom. I plan to use the questionnaire that I developed in the workshop to conduct a survey of the dental community to determine what their expectations are regarding the entry level skills of our graduates. This information will be invaluable in striving to incorporate these needs into our existing curriculum.

It is my sincere belief that competency based education is a challenge that will ultimately create a happier, more innovative faculty, student body, and learning environment in our community.

PROGRAM: ELECTRONICS

PROGRAM MANAGER: M. GLENN BEVIS
DEPARTMENT OF INDUSTRIAL TECHNOLOGY
PENSACOLA JUNIOR COLLEGE

The two-year Associate of Science program in Electronics trains the graduate for entry-level employment as an electronics technician. He/she frequently enters the career field with an instrument control company, a computer industry, or a manufacturer of consumer products.

The curriculum contains general education and occupational preparation. The latter is accomplished through formal class instruction in the principles of theories of electricity/electronics. The theory is reinforced, and practical applications are developed in highly structured laboratory experiences.

Freshman Year

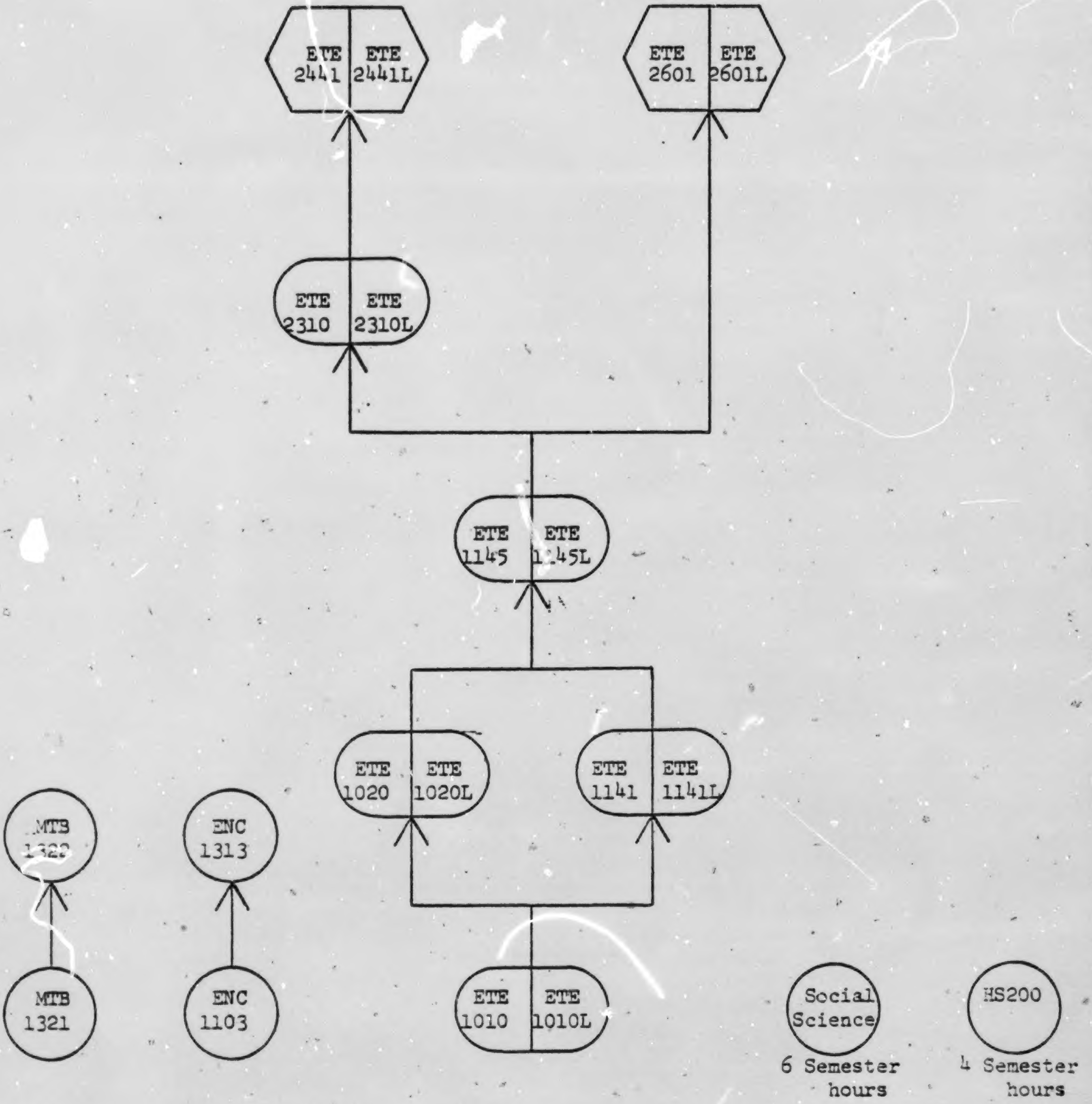
Term I		Term II	
ETE 1010 Direct Current Circuits	3 cr.	ETE 1020 A.C. Circuits	3 cr.
ETE 1010L Direct Current Cir. Lab	2	ETE 1020L A.C. Circuits Lab	2
MTB 1321 Technical Math I	3	MTB 1322 Technical Math II	3
ENC 1103 English Composition	3	ETE 1141 Solid State Devices	3
--- ----- Social Studies	3	ETE 1141L Solid State Devices Lab	2
--- ----- Humanities	2	ENC 1313 Report Writing	3

Sophomore Year

Term I		Term II	
ETE 2310 Special Circuits	3 cr.	ETE 2601 Computer Fundamentals	3 cr.
ETE 2310L Special Circuits Lab	4	ETE 2601L Com. Fund. Lab	4
ETE 1145 Solid State Circuits	3	--- ----- Humanities	2
ETE 1145L Solid State Circuits Lab	3	ETE 2441. Microwave Circuits	3
--- ----- Social Science	3	ETE 2441L Microwave Circuits Lab	4
		ETE 2323 Com. Process Control	3

MAP FOR ELECTRONICS TECHNOLOGY PROGRAM

Pensacola Junior College


ETE 2441
ETE 2441L
ETE 2601
ETE 2601L
ETE 2310
ETE 2310L
ETE 1145
ETE 1145L
ETE 1020
ETE 1020L
ETE 1141
ETE 1141L
MTB 1322
ENC 1313
MTB 1321
ENC 1103
ETE 1010
ETE 1010L
Social Science
6 Semester hours
HS200
4 Semester hours

Prepared by: Maurice G. Bevis
Pensacola Junior College

COURSES IN ELECTRONICS TECHNOLOGY PROGRAM

ETE 1010	Direct Current Circuits Corequisite: ETE 1010L
ETE 1010L	Direct Current Circuits LAB Corequisite: ETE 1010
ETE 1020	Alternating Current Circuits Prerequisite: ETE 1010 Corequisite: ETE 1020L
ETE 1020L	Alternating Current Circuits LAB Corequisite: ETE 1020
ETE 1141	Solid State Devices Prerequisite: ETE 1010 Corequisite: ETE 1141L
ETE 1141L	Solid State Devices LAB Corequisite: ETE 1141
ETE 1145	Basic Solid State Circuits Prerequisite: ETE 1141; ETE 1020 Corequisite: ETE 1145L
ETE 1145L	Basic Solid State Circuits LAB Corequisite: ETE 1145
ETE 2310	Special Circuits Prerequisite: ETE 1145 Corequisite: ETE 2310L
ETE 2310L	Special Circuits LAB Corequisite: ETE 2310
ETE 2441	Microwave Circuits Prerequisite: ETE 2310 Corequisite: ETE 2441L
ETE 2441L	Microwave Circuits LAB Corequisite: ETE 2441
ETE 2601	Basic Computer Fundamentals Prerequisite: ETE 1145 Corequisite: ETE 2601L
ETE 2601L	Basic Computers Fundamentals LAB Corequisite: ETE 2601

MTB 1321	Technical Math I
MTB 1322	Technical Math II Prerequisite: MTB 1321
ENC 1103	English Composition
ENC 1313	Technical Writing Prerequisite: ENC 1103

SOCIAL SCIENCE - 6 Semester hours

HUMANITIES - 6 Semester hours

DESCRIPTIONS OF COMPETENCIES EMPLOYERS EXPECT OF ELECTRONIC TECHNOLOGY GRADUATES. (ENTRY LEVEL FOR ELECTRONICS TECHNOLOGY).

I. Employers expect the Electronic Technology graduate to be able to use test instruments to measure the various quantities in an electronic circuit with 80% accuracy.
Assessment is made in: ETE 1010L; ETE 1020L; ETE 2310L

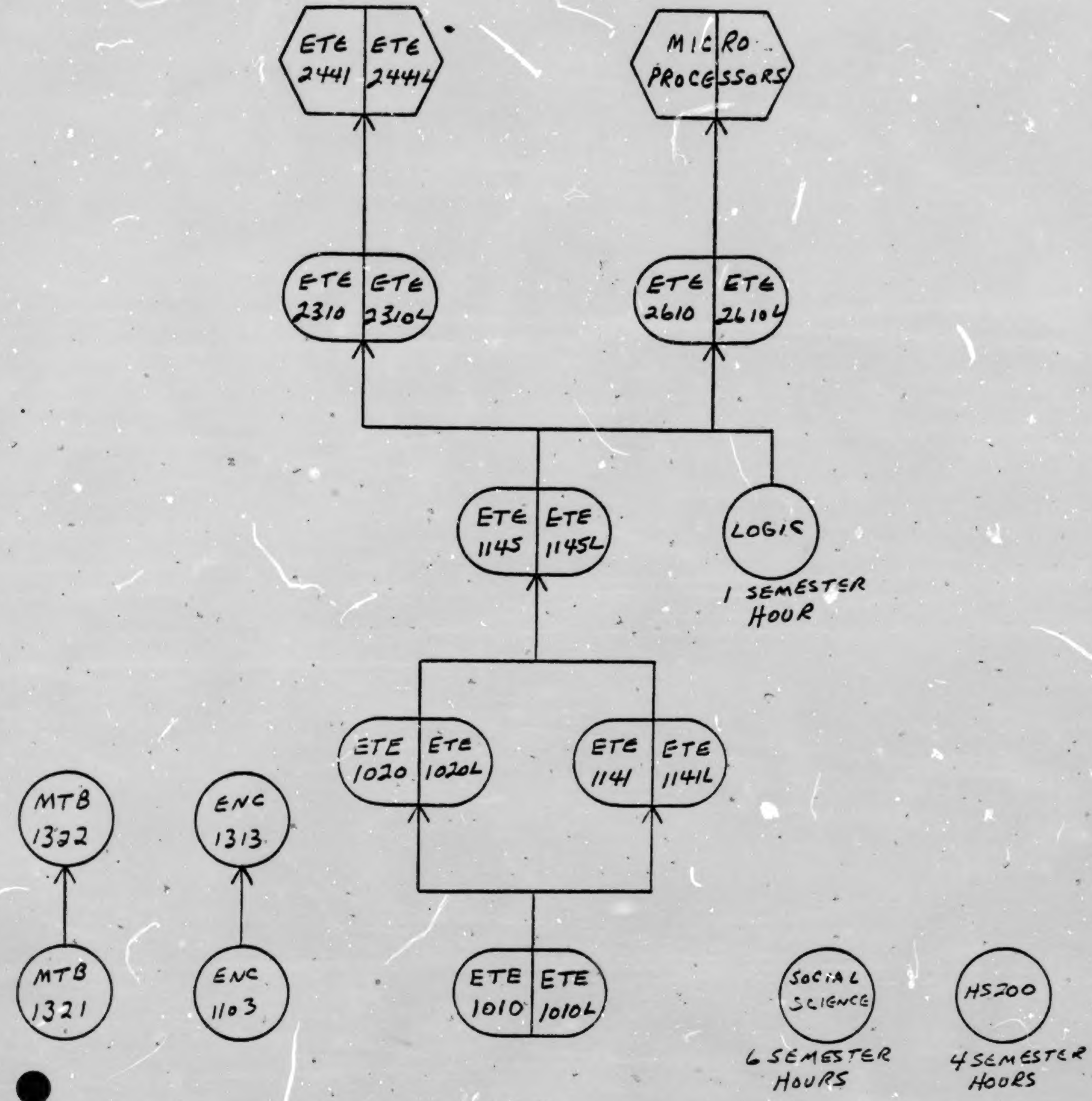
II. Employers expect the Electronic Technology graduate to recognize the schematic symbols for the various electronic components with 80% accuracy.
Assessment is made in: ETE 1010; ETE 1020; ETE 1141; ETE 2601

III. Employers expect the Electronic Technology graduate to be able to read and analyze schematic diagrams for the basic electronic circuits with 80% accuracy.
Assessment is made in: ETE 1141; ETE 1145; ETE 2310; ETE 2601; ETE 2441

IV. Employers expect the Electronic Technology graduate to troubleshoot and repair basic electronic circuits with 80% accuracy.
Assessment is made in: ETE 1141L; ETE 1145L; ETE 2310L; ETE 2601L; ETE 2441L

V. Employers expect the Electronic Technology graduate to be able to communicate with others about electronic circuits both orally and in writing.
Assessment is made in: ENC 1313; ETE 1010L; ETE 1020L; ETE 1141L; ETE 2310L; ETE 2441L; ETE 2601L

MODIFIED MAP FOR ELECTRONICS TECHNOLOGY


ETE 2441
ETE 2441L
MICRO PROCESSORS
ETE 2310
ETE 2310L
ETE 2610
ETE 2610L
ETE 1145
ETE 1145L
LOGIC
1 SEMESTER HOUR
ETE 1020
ETE 1020L
ETE 1141
ETE 1141L
MTB 1322
ENC 1313
MTB 1321
ENC 1103
ETE 1010
ETE 1010L
SOCIAL SCIENCE
6 SEMESTER HOURS
HS200
4 SEMESTER HOURS

MAJOR LEARNING OUTCOMES
ELECTRONICS TECHNOLOGY PROGRAM
PENSACOLA JUNIOR COLLEGE

ETE 1010 Direct Current Circuits - 3 semester hours

1. The student should be able to define terms associated with direct current circuits with 100% accuracy.
2. Given proper circuit values the student should be able to analyze series, parallel, compound, and complex resistive circuits with 70% accuracy.
3. Given proper circuit values the student should be able to analyze capacitive circuits and resistive-capacitive circuits with 70% accuracy.
4. Given proper circuit values the student should be able to analyze inductive and inductive-resistive circuits with 70% accuracy.

ETE 1010L Direct Current Circuits Lab - 2 semester hours

1. Given a group of ten resistors and a multimeter the student should be able to make resistance measurements with 80% accuracy.
2. Given a circuit and multimeter the student should be able to make in circuit measurements of voltage, current, and resistance with 80% accuracy.
3. Given a circuit and an oscilloscope the student should be able to make voltage measurements with 80% accuracy.

ETE 1020 Alternating Current Circuits - 3 semester hours

1. Given proper circuit values the student should be able to analyze series circuits containing resistance, capacitance, and inductance using vector analysis with 70% accuracy.
2. Given proper circuit values the student should be able to analyze parallel circuits containing resistance, capacitance, and inductance using vector analysis with 70% accuracy.
3. Given proper circuit values the student should be able to analyze filter circuits with 70% accuracy.
4. The student should be able to analyze transformer action in a circuit with 70% accuracy.

ETE 1020L Alternating Current Circuits Lab - 2 semester hours

1. Given a circuit and test equipment the student should be able to measure voltage, current and frequency with 80% accuracy.
2. Given a circuit and an oscilloscope the student should be able to make phase angle measurements with 80% accuracy.
3. Given a circuit, an oscilloscope, and a multimeter, the student should be able to find the resonant frequency and bandwidth of a resonant circuit with 80% accuracy.

ETE 1141 Solid State Devices - 3 semester hours

1. The student should be able to pass a written examination on the operating characteristics of the various solid state devices presented in class with a 70% accuracy.
2. The student should be able to draw the schematic diagram and explain the operating characteristics of the three basic amplifier configurations with a 70% accuracy.
3. Given a characteristic curve of a device the student should be able to describe the operating characteristics with 70% accuracy.

ETE 1141L Solid State Devices Lab - 2 semester hours

1. Given an assignment in the lab manual the student should be able to perform the experiment and answer the questions at the end of the experiment with 90% accuracy.
2. Given an improperly functioning circuit and test equipment the student should be able to troubleshoot the circuit and make necessary repairs with 90% accuracy.

ETE 1145 Basic Solid State Circuits - 3 semester hours

1. The student should be able to draw the schematic diagram, explain the operation, and pass a written examination on the power supply configurations presented in class with 70% accuracy.
2. The student should be able to list amplifier classifications with 70% accuracy.
3. The student should be able to draw the schematic diagram, explain the operation, and pass a written examination on amplifier circuits presented in class with 70% accuracy.
4. The student should be able to draw the schematic diagram, explain the operation, and pass a written examination on oscillator circuits presented in class with 70% accuracy.
5. The student should be able to draw the schematic diagram, explain the operation, and pass a written examination on modulation circuits presented in class with 70% accuracy.
6. The student should be able to draw the schematic diagram for a six transistor AM radio receiver with 100% accuracy.

ETE 1145L Basic Solid State Circuits Lab - 3 semester hours

1. Given an assignment in the lab manual the student should be able to perform the experiment and answer the questions at the end of the experiment with 90% accuracy.
2. Given an improperly functioning circuit and test equipment the student should be able to troubleshoot and repair the circuit with 90% accuracy.

ETE 2310 Special Circuits - 3 semester hours

1. The student should be able to draw the schematic diagram, explain the operation, and pass a written test on multivibrator circuits covered in class with 70% accuracy.
2. The student should be able to draw the schematic diagram, explain the operation, and pass a written test on wave-shaping and timing circuits presented in class with 70% accuracy.

3. The student should be able to draw the schematic diagram, explain the operation, and pass a written test on sweep generator circuits presented in class with 70% accuracy.
4. The student should be able to draw the block diagram for a TV receiver and explain the function of each block with 70% accuracy.

ETE 2310L Special Circuits Lab - 4 semester hours

1. Given an assignment in the lab manual the student should be able to perform the experiment and answer the questions at the end of the experiment with 90% accuracy.
2. Given an improperly functioning circuit and test equipment the student should be able to troubleshoot and repair the circuit with 90% accuracy.

ETE 2441 Microwave Circuits - 3 semester hours

1. The student should be able to draw the block diagram, explain the operation, and pass a written test on a microwave system with 70% accuracy.
2. The student should be able to draw the schematic diagram for servo and synchro systems, explain the operation and pass a written test with 70% accuracy.

ETE 2441L Microwave Circuits Lab - 4 semester hours

1. Given an assignment in the lab manual and test equipment the student should be able to perform the experiment and answer the questions at the end of the experiment with 90% accuracy.
2. Given an improperly functioning circuit and test equipment the student should be able to troubleshoot and repair the circuit with 90% accuracy.

ETE 2601 Computer Fundamentals - 3 semester hours

1. Given a logic problem the student should be able to form the Boolean expression, simplify, and draw the logic circuit for solving the problem with 70% accuracy.
2. Given a network of gates the student should be able to write the logic expression with 70% accuracy.
3. The student should be able to name the major component of a computer and define the function of each with 70% accuracy.

ETE 2601L Computer Fundamentals Lab - 4 semester hours

1. Given an assignment in the lab manual the student should be able to perform the experiment and answer the questions at the end of the experiment with 90% accuracy.
2. Given an improperly functioning circuit the student should be able to troubleshoot and repair the circuit with 90% accuracy.

UTILIZATION PLAN

Information gained from the workshops will be utilized as follows:

1. Program maps will be given beginning students as a guide and as a part of their orientation.
2. Suggested revisions for the program have already been made.
3. Required performance requirements for each unit of instruction will be given students.
4. Assessment procedures will be explained to the students at the beginning of each unit.

PROGRAM: EXECUTIVE SECRETARY

PROGRAM MANAGER: JUDITH A. RESCH
DEPARTMENT OF BUSINESS EDUCATION
PENSACOLA JUNIOR COLLEGE

The two-year associate of science degree executive secretarial program is designed to prepare the student for work in an office as a stenographer and to increase his/her knowledge and understanding of the business world. The program emphasizes the writing and transcribing of shorthand. Closely related to the transcribing of shorthand is a thorough knowledge of business English. Students completing the program are skilled in typewriting, filing, and office machines and have some knowledge of accounting, business principles, and data processing.

Graduates of this program, with experience and other personal qualifications, may advance to executive secretarial positions in business, government, industry, and education. This executive secretarial program is recommended for those who plan to take the certified professional secretary (CPS) examination.

Freshman Year

Term I			Term II		
GEB 1011	Intro to Business	3 cr.	SES 1211	Intermediate Shorthand	3 cr.
SES 1110	Intermediate Typewriting	3	SES 1361	Machine Trans.	3
MAN 1012	Records Mgmt	3	COC 1300	Computers	3
ENC 1103	English Comp	3	ENC 1136	English Comp	3
MTB 1103	Busn. Math	3	ECO 1000	Economics	3
--- -----	Physical Educ	1	--- -----	Physical Educ	1

Sophomore Year

Term I			Term II		
ACC 2001	Accounting	3 cr.	MAN 2100	Human Relations	3 cr.
BUL 2111	Business Law	3	COM 2100	Business Communic	3
SES 2120	Adv. Typewriting	3	--- -----	Humanities	2
SES 2212	Adv. Shorthand	3	AMH 1550	U. S. Constitution	1
SES 1321	Office Machines	3	SES 2402	Office Systems	3
--- -----	Physical Educ	1	--- -----	Elective	3
			--- -----	Physical Education	1

This two-year program is designed for the student who desires full-time employment immediately after graduation.

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MAJOR LEARNING OUTCOMES

EXECUTIVE SECRETARIAL PROGRAM

Pensacola Junior College

NOTE: These learning outcomes are for just the courses I am directly involved in teaching in the Business Education Department. All courses shown on the program map are not included.

SES 1210 - Beginning Shorthand - 3 Semester Hours

Learning Outcomes:

1. The beginning shorthand student will be able to read from textbook plates, homework notes, and familiar dictation at a rate of 100 wam.

2. The beginning shorthand student will be able to identify and write the 133 brief forms with a minimum of 92 percent accuracy.

3. The beginning shorthand student will be able to take dictation on familiar material at a minimum speed of 60 wam for 3 minutes and transcribe in longhand in 20 to 30 minutes.

SES 1211 - Intermediate Shorthand - 3 Semester Hours

1. The intermediate shorthand student will be able to take 3 minutes of new-matter business vocabulary dictation at a minimum speed of 80 wam.

2. The intermediate shorthand student will be able to transcribe 3 minutes of new-matter business vocabulary dictation with 95 percent accuracy on an electric typewriter in manuscript form in 30 minutes.

SES 2212 - Advanced Shorthand - 3 Semester Hours

1. The advanced shorthand student will be able to take 5 minutes of new-matter business vocabulary dictation at a minimum speed of 90 wam and transcribe it in 40 minutes with 95 percent accuracy.

2. Given 4 unpreviewed business vocabulary letters dictated at 90 wam, the advanced shorthand student will transcribe within 40 minutes in an acceptable letter style with carbon copy and envelope two letters which are mailable according to instructor's check list.

SES 1100 - Beginning Typewriting - 3 Semester Hours

1. The beginning typewriting student will be able to operate the keyboard by touch. A check list will be used to rate performance. The student must receive an acceptable rating.

2. The beginning typewriting student will be able to type 35 cwam on a 3-minute timed writing with a maximum of 5 errors.

Learning Outcomes (Continued)

3. The beginning typewriting student will be able to type simple problems of the following types: business letters, centering and tabulation, and manuscripts or term papers. Problems must be set up in appropriate form and errors neatly corrected. A check list will be used to rate performance. All problems must receive an acceptable rating.

SES 1110 - Intermediate Typewriting - 3 Semester Hours

1. The intermediate typewriting student will be able to type 45 correct words a minute on a 5-minute timed writing with a maximum of 5 errors.

2. The intermediate typewriting student will be able to type problems of medium difficulty in a timed production situation in the following categories: business letters, manuscripts, and centering and tabulation. The problems must be set up in appropriate from and errors neatly corrected. A check list will be used to rate performance. All problems must receive an acceptable rating.

SES 2120 - Advanced Typewriting - 3 Semester Hours

1. The advanced typewriting student will be able to type 55 NWAM on a 5-minute straight copy timed writing with a maximum of 5 errors.

2. Given an unarranged business letter, the advanced typewriting student will be able to type it in an acceptable style with multiple carbon copies, supplying correct punctuation, capitalization, paragraphing, and missing letter parts. A check list will be used to rate performance. The letter must receive an acceptable rating.

3. Given an unarranged rough-draft table, the advanced typewriting student will be able to type it in acceptable form with all errors neatly corrected. A check list will be used to rate performance. The table must receive an acceptable rating.

4. Given a manuscript or report in rough-draft form, the advanced typewriting student will be able to type it in acceptable form using appropriate top, side, and bottom margins, and providing footnotes as necessary. A check list will be used to rate performance. The manuscript or report must receive an acceptable rating.

SES 1361 - Machine Transcription - 3 Semester Hours

1. The machine transcription student will be able to skillfully operate transcribing units of various makes and models, specifically the Lanier.

2. The machine transcription student will be able to type first-time mailable copy from recorded dictation. A check list will be used to rate student performance.

Learning Outcomes (Continued)

SES 2402 - Office Systems - 3 Semester Hours

Given an in-basket problem, the office systems student will demonstrate the correct techniques and procedures in handling human relations problems, office visitors, and telephone communications. The student will also establish job priorities, record these priorities, and do the jobs which include the following areas:

(a) compose correspondence
(b) type dictated correspondence
(c) prepare minutes
(d) make travel arrangements including preparation of an itinerary
(e) use alphabetic filing system
(f) type and run a stencil and master unit
(g) make a deposit
(h) record entries in petty cash register

A check list will be used to rate performance. All items must receive an acceptable rating.

COM 2100 - Business Communications - 3 Semester Hours

1. Given 5 situations requiring communication through business letters, the business communications student will compose an appropriate business letter for 3 of the cases, two of which must be typed acceptably according to instructor's check list.

2. The business communications student will be able to compose and type in acceptable format with no detectable error corrections a resume and letter of application. A check list will be used to rate performance.

MAN 1740 - Records Management - 3 Semester Hours

1. The records management student will be able to operate filing systems based on the alphabetic, numeric, subject, or geographic arrangement.

2. The records management student will be able to select equipment and supplies for a particular office.

3. The records management student will be able to administer a records management program for a business.

SES 1321 - Office Machines - 3 Semester Hours

1. The office machines student will be able to operate by the touch system the 10-key adding machine.

2. The office machines student will be able to apply mathematical principles to the operation of office machines.

Learning Outcomes (Continued)

COC 1300 - Computers - 3 Semester Hours

1. The computers student will be able to solve problems using basic computer languages.

2. The computers student will be able to develop and run programs which solve a wide variety of problems.

Submitted by: Judith H. Reach
Assistant Professor
Business Education Department
Pensacola Junior College
May 14, 1979

JOB TITLE: Receptionist-Secretary
PROGRAM: Executive Secretarial
Judith H. Resch
Business Education Department
Pensacola Junior College
March 16, 1979

ACTION VERB	FOCUS	CRITERIA
1. Greets & interviews	visitors to the office	in a friendly and courteous manner
2. Verbally communicates	queries and information	in a clear, concise manner
3. Interacts	with clients, supervisors, and co-workers	in a pleasant and businesslike way
4. Arranges (&) keeps	appointments supervisor's appointment calendar	with efficiency
5. Handles	incoming and outgoing phone calls	in a pleasant and courteous manner
6. Opens, reads & sorts	incoming mail	promptly and efficiently
7. Types	routine correspondence (letters, memoranda, reports, and forms)	mailably in an acceptable form and style
8. Operates	common office equipment such as calculators, photocopy machines, and duplicators	skillfully
9. Keeps	company financial records, requiring basic bookkeeping and math knowledge	accurately
10. Maintains	basic filing system for fast and efficient filing and retrieval of correspondence	with capability
11. Requisitions & keeps	record of office supplies	with competence
12. Conducts	banking transactions of the business	accurately and efficiently

JOB TITLE: Secretary I (Civil Service)
PROGRAM: Executive Secretarial
Judith H. Resch
Business Education Department
Pensacola Junior College
March 16, 1979

ACTION VERB	FOCUS	CRITERIA
1. Takes	new-matter, business vocabulary dictation	at a minimum of 80 wam for 3 minutes
2. Transcribes	new-matter business vocabulary dictation and/or recorded dictation	mailably in acceptable format and style
3. Takes (&) prepares	notes at meetings minutes for distribution	skillfully
4. Types	straight copy material	at a rate of 35 correct words a minute
5. Types	correspondence, memoranda, reports, manuscripts, and other administrative forms	mailably in an acceptable form and style
6. Composes	routine correspondence for employer's signature	using appropriate grammar and punctuation
7. Maintains	alphabetical, numerical, geographic, or simple subject-matter filing system for fast and efficient filing and retrieval of correspondence	with competence
8. Receives routes, & places	telephone calls	in a pleasant and courteous manner
9. Operates	common office equipment such as adding machines, calculators, photocopy machines, and duplicators	with capability
10. Keeps	financial and other records involving a limited knowledge of bookkeeping and math principles	accurately
11. Receives & processes	incoming mail	promptly and efficiently
12. Verbally communicates	requests, information, and instructions	in an effective manner
13. Interacts	with co-workers, superiors, and customers	in a pleasant and businesslike way
14. Relieves	employer of clerical work and minor administrative and business detail	within the scope of her authority

INTERVIEW RATING SCALE FOR ASSESSING POST GRADUATE PERFORMANCE DATA

JOB TITLE: Secretary I (Educ. Sec.)
INTERVIEW LOCATION: Educ. Institution
PROGRAM: Executive Secretarial
PERSON INTERVIEWED: Administrator
INTERVIEWER: Judy Resch
DATE: 3/22/79

REQUIRED ACTION	FOCUS OBJECT	CONDITIONS (tools, setting, etc.)	CRITERIA (evidence or result)	PERFORMANCE		
				S	U	NI
Takes	dictation	in supervisor's office	turning out a mailable letter, memo, etc.	X		
Types	correspondence	on Memory or IBM Selectric typewriter in her office	in a satisfactorily completed manner	X		
Answers	telephone	in her office recording messages or transferring calls to proper individuals	messages received or calls transferred to recipients	X		
Maintains	files	in her office, using alphabetic filing system	being able to locate copies upon request satisfactorily	X		
Prepares	requests for contracts	securing information with no involvement from supervisor--completes on typewriter	properly completed request	X		
Operates	reprographics equipment	in office equipment room	turning out properly duplicated copies	X		
Prepares	tests	on Memory or IBM typewriter	to the satisfaction of faculty members	X		
Calculates	payroll	for part-time, evening, and off-campus employees	accurately, receiving no complaints from employees	X		
Assists	visitors, students, salesmen, etc.	in office situation	able to answer questions related to departmental matters	X		
Arranges & keeps	appointments	in office	appointments kept accurately & individuals informed	X		
Verbally communicates	with students, faculty, & other staff	in office situation	effective two-way communication	X		
Requisites & keeps	record of office supplies	in office supply room	sufficient supply on hand to meet needs at all times	X		
Interacts	with faculty, co-workers, & supervisors	in office situation	maintaining a good rapport	X		

INTERVIEW RATING SCALE FOR ASSESSING POST GRADUATE PERFORMANCE DATA

JOB TITLE: Secretary I (State Civil Service)
INTERVIEW LOCATION: State Service Agency
PROGRAM: Executive Secretarial
PERSON INTERVIEWED: Counselor II
INTERVIEWER: Judy Resch

REQUIRED ACTION	FOCUS OBJECT	CONDITIONS (tools, setting, etc.)	CRITERIA (evidence or result)	PERFORMANCE		
				S	U	NI
Performs	receptionist duties	at front desk, greeting clients	in a kind and caring manner (Esp. important in this type of office)	X		
Handles	incoming phone calls	requires taking a lot of messages involving price quotations from vendors	gentle telephone voice, relaying information in a courteous, friendly manner	X		
Schedules	appointments	of various nature for 3 counselors	efficiently	X		
Composes	routine letters to clients	in office on electric typewriter	in an acceptable style, using correct grammar, spelling, & punctuation	X		
Transcribes	recorded dictation consisting of letters, memos, case studies, etc	from Gray ETC transcriber	mailably, in acceptable format and style, correcting errors in grammar, etc., as need arises (supervisor is confident of her ability to do this)	X		
Types	letters, memos, & all sorts of forms	on electric typewriter	in acceptable form and style	X		
Performs	bookkeeping duties including student authorizations for tuition, books, supplies, etc.	using calculator, checking and verifying information	accuracy, an absolute must	X		
Maintains	files	using alphabetical filing system, with special adaptations for this particular office	able to locate and retrieve records rapidly	X		
Reminds	supervisor	concerning amount of money left in budget to work with	at appropriate intervals	X		
Coordinates	most activities	with business office and other VR secretaries in paying bills for counselors who have students taking courses at PJC	flexible personality to deal w/ different types of people	X		

INTERVIEW RATING SCALE FOR ASSESSING POST GRADUATE PERFORMANCE DATA

PAGE 2

JOB TITLE: Secretary I (State Civil Service)

INTERVIEW LOCATION: State Service Agency

PROGRAM: Executive Secretarial

INTERVIEWER: Judy Reach

DATE: March 29, 1979

PERSON INTERVIEWED: Counselor II

REQUIRED ACTION	FOCUS OBJECT	CONDITIONS (tools, setting, etc.)	CRITERIA (evidence or result)	PERFORMANCE *S	U	NI
Organizes	office routines and functions	relieving supervisor of minor administrative and business detail	efficiently, and within the scope of her authority	X		
Interacts	with co-workers, superiors, and clients	in office situation	in a professional and pleasant manner	X		
Handles	adverse situations	in office situation (for example, a client goes berserk in the office)	in a calm and efficient manner	X		
Takes	face-to-face dictation	from supervisor, infrequently	turning out mailable copy	X		

NOTE: feels that the training provided in the Executive Secretarial program adequately prepared his secretary to handle her present duties. He says that she is doing a very good job, and he would like to see her promoted to Secretary II when the opportunity becomes available.

*S--Satisfactory
U--Unsatisfactory
NI--Needs Improvemen

INTERVIEW RATING SCALE FOR ASSESSING POST GRADUATE PERFORMANCE DATA

JOB TITLE: Secretary I (Educ. Secretary)
INTERVIEW LOCATION: Educ. Institution
PROGRAM: Executive Secretarial
PERSON INTERVIEWED: Secretary I
INTERVIEWER: Judy Resch
DATE: March 29, 1979

REQUIRED ACTION	FOCUS OBJECT	CONDITIONS (tools, setting, etc.)	CRITERIA (evidence or result)	PERFORMANCE *S	U	NI
Prepares	tests and hand outs for faculty	usually typed on Memory typewriter	feedback from faculty whether satisfactory or unsatisfactory	X		
Takes	dictation	from supervisor and occasionally from department head	mailable letter, memo, etc.	X		
Answers	telephone	in office situation	promptly, taking clear and correct messages in a professional manner	X		
Operates	Memory typewriter	to type most material	turns out a perfect copy	X		
Prepares	payroll	for part-time, evening, and off-campus instructors--checking time cards and totaling hours	accurately, receiving no complaints from instructors	X		
Maintains	files	personnel and correspondence, primarily using alphabetic system	fast retrieval of records	X		
Operates	reprographics equipment	in office equipment room	turning out appropriate number of copies in acceptable form	X		
Transcribes	recorded dictation	from Dictaphone--infrequently, primarily for department head	turning out mailable copy	X		
Opens	mail for supervisor	does not put it in any particular order	efficiently, routing improperly addressed mail to the appropriate person	X		
Gives	information to visitors, students, and faculty	in office situation	correct information concerning departmental matters in a courteous, friendly manner	X		
Checks out	shorthand tapes and records primarily for night students	in office	assisting students in helpful manner	X		

*S--Satisfactory
U--Unsatisfactory
NI--Needs Improvemer

INTERVIEW RATING SCALE FOR ASSESSING POST GRADUATE PERFORMANCE DATA

PAGE 2

JOB TITLE: Secretary I
(Educ. Secretary)

INTERVIEW LOCATION: Educ. Institution
PROGRAM: Executive Secretarial

PERSON INTERVIEWED: Secretary I
INTERVIEWER: Judy Reech
DATE: March 29, 1979

REQUIRED ACTION	FOCUS OBJECT	CONDITIONS (tools, setting, etc.)	CRITERIA (evidence or result)	PERFORMANCE *S	U	NI
Verbally communicates	with students & instructors	in office dealing with many different types of personalities	avoiding misunderstandings and maintaining a good professional working relationship			X
Requests, maintains & orders	office supplies	in office staying within limitations of departmental budget	maintaining adequate supply of materials to meet needs at all times	X		

NOTE: said that although the training she received in the Executive Secretarial program was satisfactory, she felt that more information and training on correct phone procedures should be provided. She also felt that she needed improvement in finding her own errors in work that she does.

*S--Satisfactory
U--Unsatisfactory
NI--Needs Improvement

INTERVIEW RATING SCALE FOR ASSESSING POST GRADUATE PERFORMANCE DATA

JOB TITLE: Stenographer
INTERVIEW LOCATION: Utilities Co., Pensacola
PROGRAM: Executive Secretarial
PERSON INTERVIEWED: Personnel Director
INTERVIEWER: Judy Reach
DATE: March 29, 1979

REQUIRED ACTION	FOCUS OBJECT	CONDITIONS (tools, setting, etc.)	CRITERIA (evidence or result)	PERFORMANCE *S	U	NI
Takes	dictation	generally from 3 to 5 different executives	correspondence makes sense and is error free	X		
Types	letters, memos, forms, reports, & tabulations	from rough-draft copy on IBM electric typewriter	in acceptable form containing no errors	X		
Answers	telephone	in office situation for several individuals (shares responsibility with other girls in office)	answers with name and office, in a pleasant and courteous manner			X
Operates	photocopiers	IBM and Xerox	efficiently	X		
Maintains	files	filing system varies from department to department, basically alphabetic	fast and efficient retrieval of records			X
Handles	incoming mail	sorts mail for individuals in the department; and if requested, she opens it and reads it	knows what mail should be opened and what mail should not be opened; decision making as to which person should receive particular mail	X		
Interacts	with co-workers, superiors, and customers	in office situation--usually 3 to 5 girls occupying one office	minimum amount of conflict and problems in this type situation; maintain businesslike behavior			X
Verbally communicates	with co-workers, superiors, and customers	in office situation	effective two-way communication; messages received and acted upon in appropriate manner	X		
Keeps	tickler file	independently	manages system and follows through with what needs to be done	X		
Performs	limited receptionist duties	varies; usually in area or department in which she works	recognizes employees within the company and regular visitors to the company; directs people to appropriate areas in a friendly and courteous manner	X		

*S--Satisfactory
U--Unsatisfactory
NI--Needs Improvement

INTERVIEW RATING SCALE FOR ASSESSING POST GRADUATE PERFORMANCE DATA

JOB TITLE: Stenographer
INTERVIEW LOCATION: Utilities Co., Pensacola
PERSON INTERVIEWED: Personnel Director
PROGRAM: Executive Secretarial
INTERVIEWER: Judy Resch
DATE: 3/29/79

REQUIRED ACTION	FOCUS OBJECT	CONDITIONS (tools, setting, etc.)	CRITERIA (evidence or result)	PERFORMANCE		
				S	U	NI
Orders	office supplies	if something special is needed for a report that is being done	keeps up with latest developments in office supplies--knows what is available and where to get it	X		
Works	in pressure situations most of the time	in office situation working for 3 to 5 executives and also sharing office with 3 to 5 girls	in a calm and efficient manner			X

PLANS FOR UTILIZATION

I have already utilized much of the information I gained from the projects in evaluating and improving our Executive Secretarial Program.

The program map that I developed will enable the student to see a clear picture of the path she needs to follow to reach the ultimate goal of an AS Degree. The program map is much more meaningful to look at and study than is a list of courses that one needs to take in order to complete a program.

In developing the major learning outcomes for each course, I took a closer look at the wording to make sure that the student as well as others looking at the program would be able to understand exactly what was required in that particular course. The interviews that I conducted at various companies in the Pensacola area proved to be very valuable in determining if we were meeting the needs of the business community as far as the content of our courses was concerned. I have recently written and updated syllabi utilizing this information.

I am sure that I will continue to use the information that I have gained from these workshops as we strive to evaluate our programs and keep them up to date to meet the needs of the students who plan to enter the job market in our community.

PROGRAM: FASHION MERCHANDISING

PROGRAM MANAGER: PATRICIA COTTRELL
DEPARTMENT OF BUSINESS EDUCATION
PENSACOLA JUNIOR COLLEGE

Fashion Merchandising at Pensacola Junior College is a two-year associate of science program. The immediate objective is to train the individual in the art and science of retail sales. The career aspirations of the graduates include retail management, fashion coordination, and fashion buying.

Freshman Year

Term I			Term II		
GEB 1011	Intro. to Business	3 cr.	MAN 2100	Human Relations	3 cr.
ENC 1103	English	3	COC 1300	Intro to Computers	3
CTE 1811	Fashion Merchandising	3	ENC 1136	English	3
MTB 1103	Business Math	3	CTE 1825	Fashion Merchandising	3
SPC 1020	Fund. of Speech	3	MAR 1101	Salesmanship	3
--- -----	Physical Ed	1	--- -----	Physical Ed	1

Sophomore Year

Term I			Term II		
COM 2100	Business Comm	3 cr.	ECO 1000	Economics	3 cr.
CTE 2800	Fashion Internship I	3	ANT 2410	Cultural Anthropology	3
CTE 2500	Fashion History	3	MAR 2011	Marketing	3
SOC 2000	Intro to Sociology	3	CTE 2851	Fashion Coordination and Promotion	3
--- -----	Elective	3	ARH 2000	Humanities Art	2
--- -----	Physical Ed	1	AMH 1550	American Constitution	1

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Learning Outcomes
Fashion Merchandising Program

CTE 1811 - Fashion Merchandising I — 3 credits

Learning Outcomes:

1. The student should be able to describe how economic factors affect the production and consumer purchasing power of contemporary fashions by indentifying the effects of income, population and technological advances on the fashion industry.

2. The student should be able to identify, within their community, one store from each of the following five categories of retail distributors of fashion: department, speciality, chain, discount, and variety. The student should identify each by name, definition, merchandising policies, customer and selling services offered, price and assortment.

3. The student should be able to name the three major domestic fashion market centers and describe the importance of each market. (100%)

4. The student should be able to name and describe the Five Principles of Fashion with 100% accuracy.

5. The student should be able to name and describe the five stages of the fashion cycle with 100% accuracy.

CTE 1825 - Fashion Merchandising II — 3 credits

Learning Outcomes:

1. Given a six month merchandising plan, including plan sales, plan BOM stock and plan $ markdowns, the student should be able to calculate, with 98% accuracy, markdown percent and retail purchases for the 6 month period.

2. Given the following retail transactions, purchases, sales, customer returns, price changes, transfers, return-to-vendor, and merchandise on order, the student should describe the effect of these transactions on the book inventory. The student should be able to describe the difference betwen a physical and book inventory.

3. Given a selling situation, the student should demonstrate, through role-playing, a satisfactory comprehension of opening a sale, indentification of customer needs, product and fashion knowledge, customer satifisfaction and closing a sale.

4. The student should be able to describe five aids used by retailers in determining customer demand from in store sources and from outside sources with 90% accuracy.

CTE 2500 - Fashion History — 3 credits

Learning Outcomes:

1. Given one of the following historical periods, Renaissance, Baroque or Empire, the students should be able to describe both orally and visually, using the fashions of men and/or women, how fashion in a "Mirror of the Times."

2. Using the fashions of the Egyptian Empire, from the Old, Middle and New Kingdom, the student should demonstrate both orally and visually the effect religion has on fashion.

3. Using the fashions of American women from the late 1800's to the present, the student should demonstrate both orally and visually the effects technological and sociological changes have on fashion.

CTE 2800 - Fashion Internship 3 credits

1. While working in a retail store, the student's sales record should demonstrate a performance that is equaled to the department or store average of the others with the same length of service on this job - considering actual selling opportunity.

2. While working in a retail store, the student should demonstrate dependability by arriving on the job punctually as scheduled 98% of the time.

3. While working in a retail store, the student should demonstrate responsibility by completing tasks without verbal instructions or constant supervision at least 95% of the time.

4. While working in a retail store, the student should demonstrate 100% accuracy in operating the terminal and keying in vital sales information.

5. While working in a retail store, the student should demonstrate the necessity of building clientele and work toward that end by promoting goodwill among no sale and sales customers.

CTE 2851 - Fashion Coordination and Promotion 3 credits
Learning Outcomes:

1. Given various consumer and trade publications and visits to local merchants to view and interview key store personnel, the student should identify the important present and future fashion trends as pertains to silhouette, fabric and color in clothing and accessories for men, women and children.

2. Given three weeks, 20 people and an A. V. equipped stage, the student should organize, produce, and promote a commentated twenty minute, three scene fashion show featuring 45 garments. It will be the student's responsibility to organize the twenty people into various committees for staging, programming, writing commentary and promotion. The student will be given the necessary fashions to show.

PENSACOLA JUNIOR COLLEGE
FASHION MERCHANDISING PROGRAM

PREPARED
BY
PAT COTTRELL

CTE 2800-FASHION INTERNSHIP

Fashon internship is a supervised work program in which the student is required to work a minimum of 200 hours with a local retail store. The student is evaluated on their work performance by both the instructor and their retail supervisor. The work program is completed during Fall Term of the student's second year at Pensacola Junior College.

COMPETENCY DESCRIPTIONS

1. The student should demonstrate an ability to anticipate work to be completed outside of sales such as:1) Making supervisors aware of low stock in specific sizes, colors and/or styles and/or lost sales because of same. 2) Offering suggestions for better placement and/or presentation of merchandise. 3) Straightening stock and keeping merchandise on the selling floor.

2. The student should demonstrate the ability to communicate clearly both orally and in writing such as: 1) Being able to complete simple task as telephone orders and stock counts 2) Demonstrating the procedure for completion of various retail forms as sales, refund and credit slips.

3. The student should demonstrate sales ability by: 1) Having a sales average equal to that of others in the department with the same sales experience. 2) Demonstrating the opening and closing techniques of a sale including suggestive selling. 3) By being able to identify the major manufacturers of their assigned areas. 4) Stating the store policy as it relates to customer service.

4. The student should demonstrate dependability by: 1) Arriving at work on scheduled days. 2) Arriving at work on time. 3) Being available to work nights and weekends. 4) Completing assigned tasks.

JOB: Salesclerk
PROGRAM: Fashion Merchandising
By Pat Cottrell
Business Education Dept.
Pensacola Junior College
March 16, 1979

Action Verb	Focus	Criteria
Arranges	Merchandise on counters, racks, tables and shelves	to promote sales
Identifies	Customer wants and needs	to satisfy customer,so; they will return to the store in the future
Opening	the sale	Greet and make customer aware of the merchandise assortment
Closing	the sale	to make the customer say "yes" to a merchandise choice
Totals	Price and tax on merchandise selected by the customer	inorder to determine correct billing
Advises	on durability, versatility, fashion rightness, fit and price	to help customer make a successful choice and prevent the return of the merchandise
Cleans	Racks, counters, tables, register stands and dressing rooms	to help prevent spoilage of merchandise, shortage, theft and to show neat organized image to the customer
Stocks	Racks, shelves, tables, and counters	to keep merchandise selection, assortment at its peak
Informs	Low stock in sizes, colors, and/or styles, price	to prevent lost sales
Suggest	Alternative fashion choices	to incourage versatility, promote multiple sales
Educates	Customer	on current fashion choices for correct coordination of a total look
Counts	to make and count back change to the customer	to prevent overage and shortage on the register

JOB: Assistant Mana
PROGRAM: Fashion Merchandising
By Pat Cottrell
Business Education Dept.
Pensacola Junior College
March 16, 1979

Action Verb	Focus	Criteria
Trains	Salesclerks	in store policies, department procedures and job duties
Helps	Department Manager	in completing her departmental duties
Listens	Customer complaints	to resolve problems and promote customer good will
Examines	Returned merchandise	for correct refund to promote customer satisfaction
Assigns	Salesclerks	to work, lunch, break, and vacation schedules
Checks	Merchandise for correct price and count	to prevent shortage and check for damage when it first enters the department
Approves	Checks, cash refunds, and credits on returned merchandise	to check for counter checks, proper I.D's Help prevent shortage due to errors in crediting Help prevent pilferage
Stocks	Racks, shelves,tables, and counters	to keep merchandise assortment at its peak inorder to make planned sales
Educates	Salesclerks	on new merchandise to be received, and fashion trends, so; they can inform the customers
Assist	Salesclerks	on the selling floor during peak selling hours
Informs	Salesclerks	on advertised merchandise, special promotions and changes in store procedures
Pulls	merchandise from the floor	to reticket merchandise because of markdowns, lost or one part tickets and to repair or return damaged merchandise

INTERVIEW LOCATION: Retail Store JOB TITLE: Sales Assistant DATE: 4/4/79
PERSON INTERVIEWED: Student INTERVIEWER: Pat Cottrell

PROGRAM: FASHION MERCHANDISING

RATING SCALE: 4 = Superior 3 = Above Average 2=Average 1 = Below Average 0 = Unacceptable

1. Promotes the store's image and executes store policies by effectively maintaining a positive and pleasant attitude. 4 3 [✓ 2] 1 0
2. Cooperates with supervisor/s by correctly completing assigned tasks and working overtime when necessary. [✓ 4] 3 2 1 0
3. Can be depended upon to arrive at the job punctually as scheduled 98% of the time. 4 [✓ 3] 2 1 0
4. Assumes responsibility by completing tasks without verbal instructions or constant supervision at least 95% of the time. 4 [✓ 3] 2 1 0
5. Informs supervisor through verbal and/or written communication of specific stock problems which may result in lost sales. 4 [✓ 3] 2 1 0
6. Counts the terminal bank when opening and closing the register with 100% accuracy. 4 3 [✓ 2] 1 0
7. Sales performance record is equal to the department or store average of others with the same length of service on this job - considering actual selling opportunity 4 3 [✓ 2] 1 0
8. Advises the customer of durability, versatility, fashion rightness, fit and price in order to help the customer make a successful choice and prevent the return of the merchandise. [✓ 4] 3 2 1 0
9. Solves the problems of a dissatisfied customer giving 100% satisfaction in a pleasant and courteous manner. 4 [✓ 3] 2 1 0
10. Communicates with the customer in order to indentify and satisfy their individual wants and needs. [✓ 4] 3 2 1 0
11. Demonstrates product knowledge by identifying available merchandise according to brand names, fit, quality, and location within the department and/or store. (95% accuracy) 4 [✓ 3] 2 1 0
12. Operates the terminal by keying in vital sales information with 100% accuracy. [✓ 4] 3 2 1 0
13. Suggests alternative fashion choices to encourage satisfaction and multiple sales. [✓ 4] 3 2 1 0
14. Demonstrates the necessity of building clientele and works toward that end by promoting goodwill with no sale and sale customers. 4 [✓ 3] 2 1 0
15. Demonstrates fashion knowledge in exercising appropriate judgement with personal apparel choices including a neat and orderly appearance. 4 [✓ 3] 2 1 0

INTERVIEW LOCATION: Retail Store JOB TITLE: Sales Assistant DATE: 4/4/79

PERSON INTERVIEWED: Sales Manager INTERVIEWER: Pat Cottrell

PROGRAM: FASHION MERCHANDISING

RATING SCALE: 4 = Superior 3 = Above Average 2=Average 1 = Below Average 0 = Unacceptable

1. Promotes the store's image and executes store policies by effectively maintaining a positive and pleasant attitude. [✓ 4] 3 2 1 0
2. Cooperates with supervisor/s by correctly completing assigned tasks and working overtime when necessary. [✓ 4] 3 2 1 0
3. Can be depended upon to arrive at the job punctually as scheduled 98% of the time. 4 [✓ 3] 2 1 0
4. Assumes responsibility by completing tasks without verbal instructions or constant supervision at least 95% of the time. [✓ 4] 3 2 1 0
5. Informs supervisor through verbal and/or written communication of specific stock problems which may result in lost sales. 4 3 [✓ 2] 1 0
6. Counts the terminal bank when opening and closing the register with 100% accuracy. 4 3 [✓ 2] 1 0
7. Sales performance record is equal to the department or store average of others with the same length of service on this job - considering actual selling opportunity [✓ 4] 3 2 1 0
8. Advises the customer of durability, versatility, fashion rightness, fit and price in order to help the customer make a successful choice and prevent the return of the merchandise. 4 [✓ 3] 2 1 0
9. Solves the problems of a dissatisfied customer giving 100% satisfaction in a pleasant and courteous manner. [✓ 4] 3 2 1 0
10. Communicates with the customer in order to indentify and satisfy their individual wants and needs. [✓ 4] 3 2 1 0
11. Demonstrates product knowledge by identifying available merchandise according to brand names, fit, quality, and location within the department and/or store. (95% accuracy) [✓ 4] 3 2 1 0
12. Operates the terminal by keying in vital sales information with 100% accuracy. [✓ 4] 3 2 1 0
13. Suggests alternative fashion choices to encourage satisfaction and multiple sales. 4 [✓ 3] 2 1 0
14. Demonstrates the necessity of building clientele and works toward that end by promoting goodwill with no sale and sale customers. 4 [✓ 3] 2 1 0
15. Demonstrates fashion knowledge in exercising appropriate judgement with personal apparel choices including a neat and orderly appearance. 4 [✓ 3] 2 1 0

PROGRAM: GENERAL CLERICAL

PROGRAM MANAGER: E. CHARLES COLGAN
DEPARTMENT OF BUSINESS EDUCATION
PENSACOLA JUNIOR COLLEGE

The General Clerical program develops competence in many areas of office work. The student completing this 12-month course is ready for employment as general office worker in business and governmental agencies as typists, receptionists, and clerks in payroll, filing, billing, general office, mail, or information.

The simulated office practice work done the second summer term gives the student a chance to perform tasks found in entry-level jobs and helps the student decide what kind of job he would like and could do successfully.

Term I

SES 0101	Typewriting	4 cr.
COM 0104	Reading Improvement	3
BTM 0101	Basic Business Math	5
SES 0110	Records Control	5
COM 0101	Vocabulary & Spelling	5

Term II

SES 0102	Typewriting	3 cr.
BAN 0101	Business Principles	5
COM 0102	English for Business	5
MAN 0105	Human Relations	4
SES 0109	Business Machines	3

Term IIIA

SES 0104	Typewriting	3 cr.
COM 0103	Business Writing	5
ACC 0101	Record Keeping	4

Term IIIB

SES 0204	Simulated Office Pract.	4 cr.
SES 0111	Typewriting and Transcription	5

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PROGRAM LEARNING OUTCOMES

1. The student will acquire the Office skills necessary for seeking and obtaining gainful employment in a general office position. This competency will be assessed in the individual courses of the General Clerical Program.

2. Given a five minute timed writing on straight copy material the student will be able to type at least 40 WPM with no more than 5 errors. This competency will be assessed in SES 0104 and SES 0111.

3. Given a 30 minute production test on business letters the student will be able to type at least 3 short letters using correct letter form. The student will be able to proofread and make corrections where necessary with 100% accuracy. This competency will be assessed in SES 0104 and SES 0111.

4. Given a 30 minute production test on tabulation, ruled and complex tables, the student will be able to construct, type, proofread, and make corrections where necessary with 97 - 100% accuracy. This competency will be assessed in SES 0104 and SES 0111.

5. Given 30 business assorted documents the student will be able to code, file and retrive the documents within 50 minutes with a 97 - 100% accuracy. This competency will be assessed in SES 0110.

6. Given 35 - 50 assorted business problems the student will be able to calculate the correct answers using calculating machines within 50 minutes with 97 - 100% accuracy. This competency will be assessed in SES 0109.

7. The student will acquire the skills necessary to develop relationships that are necessary for working with one's co-workers and the public successfully. This competency will be assessed in MAN 0105 and SES 0204.

8. The student will acquire the written and verbal communication skills necessary to communicate with others in an acceptable manner. These competencies will be assessed in COM 0101, COM 0104, COM 0102, COM 0103, and SES 0204.

Major Performance Activities of Individual Courses

SES 0101 Typewriting I. This course will prepare the student to typewrite:

(1) By touch system without looking at the keyboard as he/she types words, sentences and paragraphs.

(2) Numbers and certain special symbols that are important for his own use and for business typewriting.

(3) With acceptable speed and with good control.

(4) Notes, letters, postal cards, tables, outlines, manuscripts, bibliographies, business forms, and rough drafts.

SES 0102 Developmental Typewriting. This course is a continuation of Typewriting I. It will prepare the student to:

(1) Improve basic typewriting skills usi[illegible] electric typewriters.

(2) Proofread and correct his own errors as he types simple tabulated reports, outlines, letters, manuscripts, business forms, and reports.

(3) Type mailable letters.

(4) Make carbon copies of various letters, and address envelopes.

SES 0104 Intermediate Typewriting. This course will prepare the student to:

(1) Continue to improve basic typewriting skills.

(2) Type advanced business correspondence.

(3) Type business correspondence with a minimum of direction and supervision

(4) Type business letters and forms in production rate.

(5) Develop the skill of duplication by using the spirit process and the stencil process.

SES 0111 Advanced Typewriting. This course will prepare the student to:

(1) Develop a typewriting skill comparable to that required for a secretarial position or other office job requiring typing.

(2) Type from dictaphones or other transcribing machines.

(3) Develop a self-competitive attitude toward work and good job habits.

BAN 0101 Business Principles. This course will prepare the student to:

(1) Develop a fundamental understanding in the field of business, creating a respect for its purpose, activity, and necessity.

(2) Understand the common forms of business ownership and how business is organized for effective operation.

(3) Develop a respect and understanding of American capitalism as an economic system.

MAN 0105 Human Relations. This course will prepare the student to:

(1) Differentiate between the basic human needs according to Marlow's Need Hierarchy.

(2) Identify and give examples of Bern's three ego states.

(3) Give examples of the positive approach in problem solving.

(4) Work through case problems with the five-step decision-making process.

SES 0110 Records Control. This course will prepare the student to:

(1) Process, sort, and locate filed information for quick and accurate business decisions.

(2) File cards and correspondence using the principles and techniques common to all systems of filing.

(3) Describe the different types of input/output media used with the computer.

SES 0109 Business Machines. This course will prepare the student to:

(1) Solve various business problems accurately using

a. Ten-key adding listing machines
b. Printing calculator machines
c. Rotating calculator machines
d. Electronic printing calculator machines
e. Electronic display calculator machines

ACC 0101 Record Keeping. This course will prepare the student to:

(1) Perform the fundamental processes of arithmetic through the actual keeping of business records and reports.

(2) Acquaint the student with the common types of business forms

(3) Emphasize the universality of the need for records and reports in business.

COM 0101 Vocabulary and Spelling. This course will prepare the student to:

(1) Improve spelling of frequently used words and to apply basic spelling rules to more difficult words.

(2) Use the Oxford English Dictionary.

(3) Develop a personal program for steady and systematic vocabulary growth.

COM 0102 English for Business. This course will prepare the student to:

(1) Accept formal English grammar as an integral part of all communication.

(2) Construct kernel sentence and build the kernel to produce all the complications of English sentences.

(3) Employ the techniques of rhetoric, unity, preciseness, and coherence in written and spoken communication.

COM 0103 Business Writing. This course will prepare the student to:

(1) Compose business messages through a natural, psychological approach based on essential facts.

(2) Gather data, organize, and prepare a personal folder.

(3) Respond to a simulated employment interview.

(4) Exhibit habits of accuracy essential to confident solutions of communication problems.

COM 0104 Reading Improvement. This course is currently being revised.

SES 0204 Simulated Office Practice or Work Experience. This course will enable the student to:

(1) Gain broad experience of clerical occupations, which will be applicable in almost any business organization.

(2) Develop good human relations.

(3) Integrate skills which provide for an appreciation for the total job.

(4) Discover through experience in various occupations, which job they like or dislike.

(5) Develop attitudes that are desirable and necessary for office work.

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INTERVIEW RATING SCALE FOR ASSESSING POST-GRADUATE PERFORMANCE DATA

Program ______________________ Person Interviewed ______________________

Job Title ______________________ Interviewer ______________________

Interview Location ______________________ Date ______________________

In completing this evaluation form, please use the following scale:

Excellent	4 points	Needs Improvement	1 point
Above Average	3 points	Unsatisfactory	0 points
Average	2 points	Not Applicable	N/A

	Conditions	
Types business correspondence, envelopes, stencils, and other business material in acceptable, mailable form.		0 1 2 3 4 N/A
Files and reviews business correspondence, reports, forms, invoices, receipts, and other business data accurately and within a reasonable time.		0 1 2 3 4 N/A
Operates duplicating and copying machines to reproduce data in an efficient manner.		0 1 2 3 4 N/A
Sorts, distributes, and dispatches business correspondence quickly and accurately		0 1 2 3 4 N/A
Disburses and replenishes petty cash and general office supplies accurately		0 1 2 3 4 N/A
Answers routine in-office inquiries efficiently and politely.		0 1 2 3 4 N/A

Interviewing Rating Scale for Assessing Post-Graduate Performance Data (continued)

	Conditions	
Addresses and stuffs envelopes in correct format		0 1 2 3 4 N/A
Proofreads business records and forms for correct spelling and English mechanics.		0 1 2 3 4 N/A
Receives and relays customer complaints and bill adjustments to correct destination.		0 1 2 3 4 N/A
Prepares data list in correct sequential order.		0 1 2 3 4 N/A
Transfers business data to specified forms without error.		0 1 2 3 4 N/A
Operates calculating machines to verify totals with 100 percent accuracy.		0 1 2 3 4 N/A
Relates to co-workers, employers, and general public in a positive harmonious manner.		0 1 2 3 4 N/A
Answers and conveys telephone messages accurately and completely.		0 1 2 3 4 N/A

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Utilization of the CAEL project developed for the General Clerical program at Pensacola Junior College:

1. To conduct more employer interviews to insure the General Clerical program is continually meeting the demands of the job market.

2. To move from simulated office practice to the placement of students in actual job situations.

3. To make the developed program map available to all general clerical students in order that they may realize the relationship which exists between individual courses and their impact on the total program.

4. To increase learning in the communication and math areas.

5. To make an in-depth study to determine if some courses may be deleted from the program in order that more emphasis may be placed in the communication and math areas, since they seem to be the weakest.

6. To develop a more efficient method of graduate follow-up.

PROGRAM: LEGAL SECRETARY

PROGRAM MANAGER: MURIEL B. WARREN
DEPARTMENT OF BUSINESS EDUCATION
PENSACOLA JUNIOR COLLEGE

The one-year Legal Secretary program is designed to produce high-level proficiency in typewriting, shorthand, machine transcription, preparation of legal documents, and general secretarial duties as they related directly to the law office. Emphasis is also placed on an understanding of our court structures and procedures, human relations, and legal ethics. Through the cooperation of the legal community in Pensacola, Pensacola Junior College is able to offer work experience in which the students are placed in law offices on a part-time basis during the last six weeks of the program.

Employment opportunities for the well-trained legal secretary are unlimited. In addition to the private law office, there are many opportunities for the legal secretary in corporate legal departments of business firms, abstract companies, banks, insurance companies, and governmental offices.

	Term I			Term II	
COM 0105	Vocab & Spell	5 cr	STS 0402	Adv. Legal Shorthand	3 cr.
MAN 0105	Human Relations	4	SES 0108	Legal Typewriting	3
SES 0105	Typewriting	3	MTB 0102	Business Math	5
STS 0401	Legal Shorthand	4	BUL 0101	Business Law	5
ACC 0201	Accounting I	4	BAN 0101	Business Principles	5
SES 0110	Records Control	5	COM 0102	English for Business	5
	Term IIIA			Term IIIB	
SES 0303	Office Practice I	3 cr.	SES 0304	Office Practice II	3 cr.
SES 0301	Legal Vocabulary I	5	SES 0302	Legal Vocabulary II	4
COM 0103	Business Writing	5	SES 0305	Work Experience	3

A Certificate of Occupational Proficiency is earned upon the satisfactory completion of the above program. The Associate of Science in Legal Secretary may be earned by acquiring additional credits in collegiate level courses.

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MAJOR LEARNING OUTCOMES
LEGAL SECRETARIAL PROGRAM

COM 0101 - Business Vocabulary and Spelling

The student will:

1. Correctly spell general and specific terms related to the position.
2. Use with facility the dictionary or thesaurus for purposes of spelling, word division, or extended meanings.
3. Demonstrate accurate knowledge of basic roots, prefixes, and suffixes as an aid in comprehension of printed and verbal information.
4. Learn the basic spelling rules necessary for plurals and added endings.

SES 0105 - Advanced Typewriting (Typewriting IV)

The student will:

1. Increase speed to 50 words a minute with a maximum of 5 errors on a 5-minute timed writing.
2. Work in a simulated office typing kit, making judgments as needed, finding errors in source material, and arranging unusual or new kinds of typed material.
3. Transcribe from machine recordings business correspondence.

STS 0401 - Legal Shorthand

The student will:

1. Learn the meaning of, spell in longhand, and write in shorthand all of the assigned legal terms with 80 percent accuracy.
2. Take letters and/or legal documents at dictation speeds of not less than 80 words a minute and transcribe for mailability.
3. Take miscellaneous dictation at 90 words a minute and transcribe with 95 percent accuracy.

ACC 0201 - Accounting I

The student will:

1. Work problems demonstrating the application of the accounting cycle.
2. Prepare the various financial statements needed in business.

MAN 0105 - Human Relations

The student will:

1. Demonstrate the ability to get along and to maintain harmonious relations with other people in the business world.
2. Gain insight into the behavior of others through the application of psychological principles.

SES 0110 - Records Control

The student will:

1. Apply the principles of effective management of records through class discussions and projects.
2. Define the techniques concerning storage, retention, transferring, and disposition of business records.
3. Apply the basic systems of alphabetic, numeric, geographic, and subject methods of filing through class projects.
4. Demonstrate basic concepts of computerized filing systems.

COM 0102 - English for Business

The student will:

1. Convert rough draft/dictated material (letters, memos, reports) into desired format with correct spelling, punctuation, and grammatical constructs.
2. Edit rough drafts by identifying errors in mechanics as well as faulty modification, agreement, and/or parallel structure.

SES 0108 - Legal Typewriting

The student will:

1. Type, proofread, and correct 100 land descriptions.

2. Type 65 words a minute with a maximum of three errors on a 5-minute timed writing.

3. Prepare numerous legal documents from a legal typewriting practice set with all errors neatly corrected.

4. Fill in correctly legal forms used locally.

SES 0402 - Advanced Legal Shorthand

The student will:

1. Learn the meaning of, spell in longhand, and write in shorthand all of the assigned legal terms with 80 per cent accuracy.

2. Take letters and/or legal documents at dictation speed of not less than 90 words a minute and transcribe for mailability.

3. Take legal documents from 3 to 10 minutes at 90 and 100 words a minute with maximum errors of 10 and 8, respectively.

MTB 0102 - Business Mathematics

The student will:

1. Demonstrate an understanding of and skill in performing mathematical calculations necessary in the world of business.

2. Demonstrate the ability to work basic arithmetic computations essential for consumer and personal needs.

BUL 0101 - Business Law

The student will:

1. Identify the local, state, and federal courts

2. Define and recognize basic contract law as it relates to ordinary business transactions.

BAN 0101 - Business Principles

The student will:

1. Analyze the free enterprise system through class projects and discussions.

2. Differentiate between the various forms of business ownership.

COM 0103 - Business Writing

The student will:

1. Read and answer routine correspondence with accurate spelling, grammar, and punctuation and will apply the principles of brevity.

2. Compile a vita, including letters of recommendation, certificates of proficiency or competencies, and character-reference letters.

3. Write either a proposal or term paper doing the necessary research and completing it in the necessary format.

SES 0301 - Legal Vocabulary

The student will:

1. Learn the correct spelling, meaning, and usage of an extensive legal vocabulary.

2. Understand and have a working knowledge of general legal procedure as it relates to local, state, and federal courts.

3. Take practice shorthand dictation at speeds ranging from 100 to 130 words a minute and maintain a minimum speed of 100 words a minute.

SES 0303 - Legal Office Practice

The student will:

1. Type 67 words a minute with a maximum of three errors on a five-minute timed writing.

2. Transcribe from cassettes the material in a legal secretarial practice set accurately and in proper form.

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SES 0305 - Legal Work Experience

The student will:

1. Report for work to the legal agency to which he has been assigned.
2. Bring together in practical application the legal skills he has learned.
3. Work harmoniously with the other members of the agency.

SES 0302 - Advanced Legal Vocabulary

The student will:

1. Continue to learn the correct spelling, meaning, and usage of an extensive legal vocabulary.
2. Be able to do simple research and correctly cite it.
3. Maintain a shorthand speed of at least 100 words a minute.

SES 0304 - Advanced Legal Office Practice

The student will:

1. Type 69 words a minute with a maximum of 3 errors on a 5-minute timed writing.
2. Transcribe from cassettes the material in a legal secretarial practice set accurately and in proper form.

LEGAL SECRETARY
(private practice or partnership)

Action Verb	Focus	Criteria
Operates	Conventional and modern word-processing equipment; i.e., magnetic card typewriter, memory typewriters, correcting typewriters, and CRT typewriters	Error free copy at a rate consistent with time-saving potential of equipment
Takes and transcribes	Shorthand dictation at speed determined by requirements of individual attorney	Content error free--correct spelling, punctuation, and form
Performs	Simple accounting duties--receives fees, bills clients, pays bills, makes bank deposits, and reconciles bank statements	Accurately and punctually
Researches	Reporter systems, legal encyclopedias, miscellaneous legal publications	As needed within time allotted
Cites	Materials used in briefs, correspondence, and documents	Accurately
Sets up, keeps, and advises	Attorney's calendar of scheduled appointments, conferences, court cases, and hearings	With absolute accuracy within time allotted by statute
Files and processes	Legal documents	In court of proper jurisdiction
Files and retrieves	Office correspondence and miscellaneous legal records	Current, chronology, accurate
Proofreads	Court documents and legal correspondence	Error free

Action Verb	Focus	Criteria
Answers	Oral communication problems encountered in telephone calls	Courteously and accurately. Uses acceptable English.
Converts and types	Rough draft material into final copy	Error free in proper form
Greets and informs	Clients, peers, and others	Diplomacy and understanding
Composes	Important letters and memoranda	Correct spelling, punctuation, and grammatical constructs. Correct format--without instruction or review
Takes and transcribes	Legal material (shorthand and transcribers)	Error free in proper form
Types and converts	Rough draft material into final copy	Error free in proper form
Answers	Oral communication problems, (in-out) phone calls, in-office and visitor inquiries	Diplomacy, dispatch, accuracy, acceptable English
Files and indexes	Records, legal documents, and library materials	Accuracy, completeness
Researches and summarizes	Legal publications (reporter systems, encyclopedias, and statutes)	Update changes in statutes and appellate decisions
Schedules, notifies, keeps	Legal docket of all appointments, meetings, hearings, and trials	Punctually, accurately, consistently
Prepares and types	Miscellaneous forms	Accurately within given time frame
Drafts	Standard ordinances and resolutions	Accurately within time allotted

Action Verb	Focus	Criteria
Interviews	Employees and others involved in accidents	Complete eyewitness testimony
Orders and maintains	Office supplies, books, and other materials	Current and well-stocked inventory
Evaluates	Office situations	Decision making
Operates	Word-processing equipment	Accurately and expeditiously

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Major Learning Outcomes

LEGAL SECRETARY PROGRAM

SES 0303 - Advanced Legal Office Practice

Given dictation common to a legal office, the secretary will be expected to:

1. Transcribe legal material and documents accurately and rapidly from transcribing machines; speed varying with difficulty of material.
2. Put into proper form the material transcribed from machine; correct spelling and punctuation.
3. Produce error-free copy by proofreading all work and correcting all errors prior to mailing and/or filing in proper court.
4. Operate various word-processing machines, i.e., magnetic-card typewriters, memory typewriters, correcting typewriters, and CRT typewriters (cathode-ray tube).

SES 0402 - Advanced Legal Shorthand

Given legal dictation by the attorney or supervisor, the legal secretary will be able to:

1. Take shorthand at speeds of 90 to 110 words a minute; speed being determined by the requirements of individual attorneys or supervisors, law firms, or governmental agencies.
2. Transcribe shorthand notes into error-free legal documents and letters; correct spelling, punctuation, and form.

SES 0302 - Advanced Legal Vocabulary and Procedure

Given tasks common to a legal office, the secretary will be expected to:

1. Spell correctly and know the meaning of an extensive legal vocabulary, including often-used Latin terminology.
2. Correctly apply this legal vocabulary to all areas of legal procedure.
3. Be able to find correct spelling and/or meaning of unfamiliar legal terms.
4. Understand and have a working knowledge of general legal procedure as it relates to local, state, and federal courts.

5. Understand the use of the law library and the proper procedure in locating the desired information from the legal publications.

6. Be able to do simple legal research and correctly cite it.

7. Know how and where to file legal documents.

8. Answer the telephone, take and distribute messages correctly, and set up appointments with clients and other attorneys.

9. Receive fees, do simple posting, send out statements, pay bills, make bank deposits, and reconcile firm's bank statements.

10. Order and receive stationery and supplies for firm.

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LEGAL SECRETARY
PLAN OF UTILIZATION

We plan to include the program map for our particular program in the PJC catalog as soon as possible so that there will be a high degree of consistency in the area of counseling.

The performance activities are already clearly defined in our own course syllabi, and these exercises proved to be merely another means of stating what we already are using.

The assessment procedures, while important to those who have none, merely confirmed our existing assessment procedures.

In general, we will at any time the need arises take advantage of any of the materials developed or made available to us in the CAEL workshops.

PROGRAM: MEDICAL SECRETARY

PROGRAM MANAGER: DIANE S. SUTTON
DEPARTMENT OF BUSINESS EDUCATION
PENSACOLA JUNIOR COLLEGE

The one-year Medical Secretary program is designed to develop competency in skill areas (bookkeeping, typewriting, and transcription); proficiency in office procedures; accuracy in interpretation and spelling of medical terminology; and good human relations techniques. Depending upon individual potential, the students are prepared for positions as receptionists, secretaries, and transcriptionists in doctors' offices, insurance agencies, clinics, and health agencies, including medical records, pathology, and transcription departments of general hospitals.

During the last term of the certificate program, the student interns in a hospital or clinic for three weeks and then interns in a doctor's office for three weeks under the direction of the coordinator.

Following the one-year Certificate program, the graduate may continue as a full-time or part-time student and earn an Associate of Science in Medical Secretarial Studies.

Term I			Term II		
SES 0101	Typewriting	4 cr.	SES 0405	Transcription	3 cr.
MTB 0102	Business Math	5	SES 0409	Medical Terminology	5
SES 0403	Medical Termin.	5	ACC 0201	Accounting I	4
COM 0101	Vocab. & Spelling	5	COM 0102	English for Business	5
MAN 0105	Human Relations	4	SES 0403	Office Practice	3
SES 0110	Records Control	5	SES 0408	Pharmacological Term.	5

Term IIIA			Term IIIB		
COM 0103	Business Writing	5 cr.	SES 0411	Medical Term.	5 cr.
SES 0406	Transcription	3	SES 0412	Transcription	5
SES 0410	Medical Term.	5	SES 0407	Work Experience	3

MAJOR LEARNING OUTCOMES
MEDICAL SECRETARIAL PROGRAM

SES 0101 - Typewriting for Medical Secretaries

The student will:

1. Increase speed to 50 words a minute with a maximum of 5 or less errors on a 5-minute timed writing.
2. Work in a simulated office typing kit, making judgments as needed, finding errors in source material, and arranging unusual or new kinds of typed material.

SES 0403 - Medical Terminology and Anatomy I

The student will:

1. Spell and locate bodily structures and relate basic functions to each structure.
2. Analyze medical terms giving meaning of each part - prefix, suffix, and root word.
3. Pronounce medical terms using dictionary pronunciations.

MTB 0102 - Business Mathematics

The student will:

1. Demonstrate an understanding of and skill in performing mathematical calculations necessary in the world of business.
2. Demonstrate the ability to work basic arithmetic computations essential for consumer and personal needs.

COM 0101 - Business Vocabulary and Spelling

The student will:

1. Correctly spell general and specific terms related to the position.
2. Learn the basic spelling rules necessary for plurals and added endings.

3. Use with facility the dictionary or thesaurus for purposes of spelling, word division, or extended meanings.

4. Demonstrate accurate knowledge of basid roots, prefixes, and suffixes as an aid in comprehension of printed and verbal information.

ACC 0201 - Accounting I

The student will:

1. Work problems demonstrating the application of the accounting cycle.

2. Prepare the various financial statements needed in business.

SES 0110 - Records Control

The student will:

1. Apply the principles of effective management of records through class discussions and projects.

2. Define the techniques concerning storage, retention, transferring, and disposition of business records.

3. Apply the basic systems of slphabetic, numeric, geographic, and subject methods of filing through class projects.

4. Discuss latest uses of computer technology.

5. Demonstrate basic concepts of computerized filing systems.

SES 0405 - Medical Transcription I

The student will:

1. Transcribe accurately medical reports.

2. Proofread and correct errors in transcribed reports.

3. Use reference books as necessary.

SES 0409 - Medical Terminology and Terminology II

The student will:

1. Spell and define medical terms related to symptoms, diagnosis, operative procedures, laboratory tests, radiological tests and treatment for the following systems: respiratory, digestive, urinary, and nervous.

2. Analyze medical terms giving meaning of each part--prefix, suffix, and root word.

3. Pronounce medical terms using dictionary pronunciations.

MAN 0105 - Human Relations

The student will:

1. Demonstrate the ability to get along and to maintain harmonious relations with other people in the business world.

2. Gain insight into the behavior of others through the application of psychological principles.

COM 0102 - English for Business

The student will:

1. Convert rough draft/dictated material (letters, memos, reports) into desired format with correct spelling, punctuation, and grammatical constructs.

2. Edit rough drafts by identifying errors in mechanics as well as faulty modification, agreement, and/or parallel structure.

SES 0403- Medical Office Practice

The student will:

1. Compare different medical careers and professional qualifications necessary to succeed in these careers.

2. Process medical records and insurance forms accurately.

3. Perform a variety of tasks during simulation 1, 2, and 3 making decisions as needed.

4. Typewrite letters and medical forms in correct format.

5. Spell correctly the names of local doctors, and identify the proper specialty of each local doctor.

SES 0408 - Pharmacological Terminology

The student will:

1. Spell generic and trade names of more commonly prescribed drugs.
2. Pronounce generic and trade names of more commonly prescribed drugs.
3. Identify commonly used symbols and abbreviations, weights, and measures.
4. Properly use current reference works.
5. Relate medications to body systems and desired theraputic goals.

COM 0103 - Business Writing

The student will:

1. Read and answer routine correspondence with accurate spelling, grammar, and punctuation and will apply the principles of brevity, clarity, and diplomacy.
2. Will compile a vita, including letters of recommendation, certificates of proficiency or competencies, and character-reference letters.
3. Write either a proposal or term paper doing the necessary research and completing it in the necessary format.

SES 0406 - Medical Transcription II

The student will:

1. Transcribe accurately local medical specialists reports.
2. Identify correctly the type of report being dictated.
3. Transcribe with a higher degree of accuracy and speed.
4. Determine the particular area of medical transcription that interests the student most.

SES 0410 - Medical Terminology and Anatomy III

The student will:

1. Spell and define medical terms related to symptoms, diagnosis, operative procedures, laboratory tests, radiological tests, and treatment for the following systems: reproductive, eye, and ear.
2. Analyze medical terms giving meaning of each part - prefix, suffix, and root word.
3. Pronounce medical terms using dictionary pronunciations.

SES 0412 - Medical Transcription III

The student will:

1. Transcribe reports in final copy directly from the transcribing machine.
2. Transcribe with a higher degree of accuracy and speed.
3. Contribute new terms that student will learn on their work experience.

SES 0411 - Medical Terminology and Anatomy IV

The student will:

1. Spell and define advanced medical terms related to all systems of the body.
2. Analyze medical terms, giving meaning of each part--prefix, suffix, and root word.
3. Pronounce medical terms, using dictionary pronunciations.

SES 0407 - Medical Work Experience

The student will:

1. Demonstrate acceptable office techniques when assigned to an actual medical position.
2. Work harmoniously with the professional office staff.
3. Use this work experience to synthesize knowledge and experiences from all previous courses.

MEDICAL SECRETARIAL PROGRAM

The following are competencies that local employers expect of a medical secretarial student upon completion of our one-year certificate program.

COMPETENCY	COURSE WHERE ASSESSED
Greet patient in a pleasant and effective manner and work harmoniously with office staff.	Medical Office Practice; Human Relations; Internship
Pull and locate patient histories according of office procedures.	Medical Office Practice; Internship
Answer telephone in an efficient manner using good human relations skills	Medical Office Practice; Internship; Human Relations
Schedule appointments so that the office runs as smoothly as possible	Medical Office Practice; Internship
Payment of fees (rec.) must be recorded and payments handled accurately	Medical Office Practice; Accounting; Business Math
Ledger entries must be made accurately	Medical Office Practice; Accounting; Business Math
Transcribing medical reports with all medical terms and English words spelled correctly and containing no punctuation or grammatical errors. Format must be correct.	Medical Terminology & Anatomy; Medical Transcription; Communication Courses; Medical Office Practice; Internship
Typewriting rapidly and accurately (minimum of 50 cwpm)	Medical Secretary Typing; Medical Office Practice; Internship
Use pharmacological terms correctly, and be able to pronounce them.	Pharmacological Terminology; Medical Transcription; Internship
Use Physician Desk Reference and Current Drug Handbook quickly and accurately	Pharmacological Terminology; Medical Transcription; Medical Office Practice; Internship
Assess work for its accuracy, based on a thorough knowledge of anatomy, terminology, and pharmacological terminology	Medical Transcription; Medical Office Practice; Anatomy and Terminology; Internship
Preparation of insurance forms with correct diagnosis, procedure, and condition so that physician and patient will attain maximum benefits	Medical Office Practice; Internship

INTERVIEW RATING SCALE FOR ASSESSING POST-GRADUATE PERFORMANCE DATA

Job Title: Medical Secretary

Program: __________

Person Interviewed: __________

Interview Location: __________

Date: __________

Interviewer: __________

Excellent........4 Above Average........3 Average........2 Below Average........1 Not Applicable.........NA

REQUIRED ACTION and CRITERIA	CONDITIONS (tools, setting, etc.)	PERFORMANCE
1. Transcribes from machine transcriber medical reports, letters, patient summaries, or other material in acceptable form; all errors neatly corrected; all words spelled correctly		NA 1 2 3 4
2. Interviews and greets new patients and office visitors pleasantly; obtains information to complete medical registration and insurance forms accurately		NA 1 2 3 4
3. Screens all visitors or salesmen requesting to see doctor in a tactful manner; works in/or dismisses people as necessary		NA 1 2 3 4
4. Answers telephone and questions from actual or potential patients; makes necessary phone calls in a pleasant and effective manner		NA 1 2 3 4
5. Explains and arranges payments of doctor's fees to patients in an efficient manner while creating good will		NA 1 2 3 4
6. Files, retrieves, and maintains medical and other records according to established office filing system		NA 1 2 3 4
7. Proofreads all medical material and other records while quickly assessing work for accuracy and completeness		NA 1 2 3 4
8. Types from rough draft, letters, reports, and other material quickly and accurately in acceptable format		NA 1 2 3 4

REQUIRED ACTION and CRITERIA	CONDITIONS (tools, setting, etc.)	PERFORMANCE
9. Sorts and prepares incoming and outgoing mail promptly and correctly		NA 1 2 3 4
10. Operates equipment effectively and accurately		NA 1 2 3 4
11. Calculates payment of fees; ledger entries; preparation of statements and bank deposits		NA 1 2 3 4
12. Relates to fellow office workers, subordinates, and patients in a positive, professional manner conducive to a harmonious atmosphere		NA 1 2 3 4
13. Schedules and cancels appointments for patients utilizing facilities and doctor's time with maximum efficiency		NA 1 2 3 4
14. Instructs patients concerning medical care clearly, patiently, exactly		NA 1 2 3 4
15.		NA 1 2 3 4
16.		NA 1 2 3 4
17.		NA 1 2 3 4
18.		NA 1 2 3 4
19.		NA 1 2 3 4
20.		NA 1 2 3 4

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JOB: Med. Sec. Dr.'s Offie
PROGRAM: Medical Secretary
By Diane S. Sutton
Business Ed. Dept.
Pensacola Jr. College
March 16, 1979

PERFORMANCE ACTIVITIES

Action Verb	Focus	Criteria
Transcribes	from machine transcriber medical reports, letters, patient summaries, or other material	acceptable form; all errors neatly corrected; all words spelled correctly
Interviews and greets	new patients and office visitors	pleasantly obtains necessary information to complete medical registration and insurance forms accurately
Screens	all visitors or salesmen requesting to see doctor	tactful manner; works in/or dismisses people as necessary
Answers	telephone and answers questions from actual or potential patients; makes necessary phone calls	pleasant and effective manner
Explains and arranges payments	of doctor's fees to patients	efficient manner while creating goodwill
Files, retrieves, and maintains	medical and other records	according to established office filing system
Proofreads	all medical material and other records	quickly assessing work for accuracy and completeness
Types	from rough draft, letters, reports, and other material	rapidly and accurately in acceptable format
Sorts and prepares	incoming and outgoing mail	promptly and correctly
Operates	memory and mag card typewriter; duplicating equipment	effectively and accurately

JOB: Med. Sec. Dr.'s Office
Page 2

Action Verb	Focus	Criteria
Calculates	payment of fees; ledger entries; preparation of statements and bank deposits	error free
Schedules and cancels	appointments for patients	utilizing facilities and doctor's time with maximum efficiency
Relates	to fellow office workers, subordinates, and patients	positive, professional manner conducive to a harmonious atmosphere
Instructs	patients concerning medical care	clearly, patiently, and exactly

D. Sutton
M. Warren

PLAN OF UTILIZATION

We plan to include the program map for our particular program in the PJC catalog as soon as possible so that there will be a high degree of consistency in the area of counselling.

The performance activities are already clearly defined in our own course syllabi, and these exercises proved to be merely another means of stating what we already are using.

The assessment procedures, while important to those who have none, merely confirmed our existing assessment procedures.

In general, we will at any time the need arises take advantage of any of the materials developed or made available to us in the CAEL workshops.

PROGRAM: OFFICE MANAGEMENT AND SUPERVISION

PROGRAM MANAGER: JEAN K. ROSS
DEPARTMENT OF BUSINESS EDUCATION
PENSACOLA JUNIOR COLLEGE

This two-year associate of science program gives a management approach to office services. As routine, repetitive tasks are transferred to automatic equipment, the office worker needed is one who has high-level understanding of the functioning of the organization and high-level decision-making skills. The focus in this program is preparing one with skills and understandings required in a technological age.

Freshman Year

Term I			Term II		
MAN 1700	Business	3 cr.	COC 1300	Computers	3 cr.
ENC 1103	English	3	ENC 1136	English	3
MTB 1103	Mathematics	3	MAN 2000	Management	3
MAN 1740	Records Mgmt.	3	SES 1361	Machine Transcription	3
SES 1100	Typewriting	3	ECO 2013	Economics I	3
HPR___	Physical Ed	1	HPR___	Physical Ed	1

Sophomore Year

Term I			Term II		
ACC 2001	Accounting I	3 cr.	MAN 2100	Human Relations	3 cr.
COM 2100	Communications	3	ACC 2021	Accounting II	3
BUL 2111	Business Law I	3	SES 1340	Office Management	3
MAN 1200	Personnel Mgmt	3	AMH 1550	American Constitution	1
SES 1160	Office Services	3	--- -----	Humanities	2
HPR___	Physical Ed	1	SES 2949	Simulation/Internship	3
			HPR___	Physical Ed	1

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JOB: Correspondence Secretary
PROGRAM: Office Mgmt. an[illegible]upervision
By Jean Ross
Business Education Dept.
Pensacola Junior College
March 16, 1979

Action Verb	Focus	Criteria
Transcribes	from handwritten copy, dictation machines, or printed material	using correct spelling, punctuation and grammar.
Types and codes	material for word-processing machine operation	accurately.
Prepares	on text-editing equipment, reports, repetitive letters and forms	in correct format.
Arranges	a work station	for efficiency.
Logs	in notebook, record of work done and stored on pre-recorded items	accurately.
Files	necessary materials of work completed	according to filing rules.
Assists	in equipment demonstrations and tours	with capability.
Schedules and Prioritizes	work to be done on the text-editing equipment	in an orderly manner.
Coordinates	proofreading and error correction of playback of final copy	rapidly and accurately.
Establishes	format standards for word-processing equipment	according to company standards.
Verifies and checks	technical and complex reports	with competence.
Prepares	company policy manual for word-processing	in a thorough manner.
Trains	word originators for word-processing equipment	according to company standards.

JOB: Administrative Secretary
PROGRAM: Office Mgmt. and Supervision
By Jean Ross
Business Education Dept.
Pensacola Junior College
March 16, 1979

Action Verb	Focus	Criteria
Greets and directs	visitors to appropriate areas	pleasantly and courteously.
Answers and places	telephone calls	with diplomacy.
Arranges and prepares	travel reservations and itineraries	with competence.
Assembles	information for input into word-processing system	in an orderly manner.
Composes	rough drafts for word originators	using appropriate English.
Dictates	letters, memos, etc. for correspondence center	using proper English grammar.
Arranges	for conference meetings (equipment, refreshments, etc.)	as supervisor directs.
Prepares and maintains	petty cash, expense accounts, checks, invoices, etc.	accurately.
Sorts, screens and distributes	mail for company office	expediently.
Supervises	filing and retrieval of recors of various filing systems	according to standard rules.
Works	with all personnel	in a harmonious manner.
Prioritizes	work flow	efficiently.
Trains	clerical workers in systems management	according to company standards.

SKILL RATING SHEET
Office Mgmt. & Supervision
by Jean K. Ross

Name of Occupation

Location

Person Interviewed:

Employer: Graduate:

Does this job require the employee in this office to:

N D U N/A

1. Transcribe from handwritten copy, dictation machines, or printed material using correct spelling, punctuation, and grammar.

2. Type and code material for word-processing machine operation accurately.

3. Prepare on text-editing equipment, reports, repetitive letters and forms in correct format.

4. Arrange a work station for efficiency.

5. Log in notebook, record of work done and stored on pre-recorded items accurately.

6. File necessary materials of work completed according to filing rules.

7. Assist in equipment demonstrations and tours with capability.

8. Schedule and prioritize work to be done on the text-editing equipment in an orderly manner.

9. Coordinate proofreading and error correction of playback of final copy rapidly and accurately.

10. Establish format standards for word-processing equipment according to company standards.

11. Verify and check technical and complex reports with competence.

12. Prepare company policy manual for word-processing in a thorough manner.

13. Train word originators for word-processing equipment accordint to company standards.

N = necessary D = desirable U = unnecessary N/A = not applicable

Major Learning Outcomes

OFFICE MANAGEMENT AND SUPERVISION

Pensacola Junior College

Records Management -MAN 1740

The student will:

1. apply the principles of effective management of records though class discussions and projects.
2. define the techniques concerning storage, retention, transferring, and disposition of business records.
3. apply the basic systems of alphabetic, numeric, geographic, and subject methods of filing through class projects.
4. demonstrate basic concepts of computerized filing systems.

Introduction to Business - GEB 1011

The student will:

1. analyze the free enterprise system through class projects and discussions.
2. differentiate between the various forms of business ownership.
3. apply the principles of operating a small business

Human Relations - MAN 2100

The student will:

1. demonstrate the ability to get along and to maintain harmonious relations with other people in the business world.
2. Gain insight into the behavior of others through the application of psychological principles.

Business Communications - COM 2100

The student will:

1. write acceptable business letters, memos, and reports using correct spelling, grammar, punctuation, and spelling.

2. edit rought drafts by identifying errors in mechanics, as well as faulty modification, agreement, and/or parallel structure.

Simulation-Internship - SES 2949

The student will:

1. demonstrate acceptable office techniques when assigned to an actual office position.
2. work harmoniously with a professional office staff.

Jean K. Ross
Pensacola Jr. College

OFFICE MANAGEMENT AND SUPERVISION

Pensacola Junior College

LEARNING OUTCOMES

Office Services - SES 1160

1. The student will demonstrate an understanding of the concept of word processing and its operation by designing a flow chart for a system of work flow using a partially automated word processing system.
2. Given a list of various kinds of equipment used in a large word processing center, the student will know all limitations and all methods of utilization of the new equipment, and will be able to match the equipment to the functions.
3. The student will prepare in outline form the required skill and non-skill training needed to prepare for four out of six new career positions created by a word processing center that would meet the stated criteria for these positions.

Office Management and Supervision - SES 1340

1. The student will be able to identify the functions of a general office manager
2. The student will demonstrate his ability to settle an office problem satisfactorily by a prepared checklist.
3. The student will develop his own philosophy of office management based on a simulated business with job descriptions, interviewing, job placement, training, performance appraisals, motivational techniques and evaluation.

Machine Transcription - SES 1361

1. The student will demonstrate ability to type letters from modern machine transcribers with proficiency.
2. The student will demonstrate the ability to dictate properly into a machine.
3. The student will demonstrate ability to spell correctly, punctuate, and capitalize letters and manuscripts given to him with errors from transcribers.
4. The student will demonstrate ability to revise and edit copy in rough-draft form, and prepare a correct copy.

Jean Ross
Business Education

A PLAN OF UTILIZATION OF THE PRODUCT

By working with CAEL in our follow-up project, I had an opportunity to take a closer look at a program that I had developed the year before. I took a second look at what the program would provide for the student and reviewed the outcomes of the various courses in the program. Now, when the program begins, I will have a broader knowledge of it and know what I am looking for in the graduating students.

The program map will furnish the student with a visual that makes more sense than a list of courses. They will understand the relationships of the courses, and why we need pre-requisites for some courses.

As a coordinator, it helped me to talk to representatives of other colleges, and offer them my material. The product must be used to be of value. Since so much work was done on ending competencies, the student will profit from knowing what competencies he must acquire before finishing the program. In knowing, he will be more motivated to accomplish the goals set forth.

The project provided an opportunity to visit businesses that employed word processors. I found and visited a number of businesses that offered to help with the internship program, which is the last course the student takes before graduating. I found there was a need for people to be trained in this field.

PROGRAM: STENOGRAPHIC SECRETARY

PROGRAM MANAGERS: JANET K. MARTIN
PATRICIA P. TRACHY
DEPARTMENT OF BUSINESS EDUCATION
PENSACOLA JUNIOR COLLEGE

The Stenographic Secretary program has two sequential outcomes. At the conclusion of the first year, the graduate obtains a Certificate of Occupational Competence and is capable of taking employment immediately. The graduate may continue for a second year, as a full-time or a part-time student, and earn an associate's degree in stenography.

This one-year program is designed to prepare the student for work in an office as a stenographer and to increase her/his knowledge and understanding of the business world. The program emphasizes the writing and transcribing of shorthand. Closely related to the transcribing of shorthand is a thorough knowledge of business English. Students completing the program are skilled in typewriting, filing, and office machines, and have some knowledge of accounting, business principles, and data processing.

	Term I			Term II	
STS 0101	Beginning Shorthand	4 cr.	STS 0103	Shorthand Dictation	3 cr.
SES 0101	Typewriting I	4	SES 0102	Typewriting II	3
MTB 0102	Business Math	5	COM 0102	English for Business	5
COM 0101	Vocab. & Spelling	5	MAN 0105	Human Relations	4
SES 0110	Records Control	5	SES 0109	Business Machines	3
BAN 0101	Business Prin.	5	ACC 0201	Accounting I	5

	Term IIIA			Term IIIB	
STS 0105	Shorthand Trans.	3 cr.	STS 0104	Shorthand Speed Building	3 cr.
COM 0103	Business Writing	5	SES 0105	Typewriting IV	3
SES 0104	Typewriting III	3	STS 0206	Stenography Work Exp	3

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JOB: **Secretary**
PROGRAM: Stenographic-Secretarial
By P. Trachy & J. Martin
Business Education Dept.
Pensacola Jr. College
March 16, 1979

Action Verb	Focus	Criteria
Types	from arranged and unarranged copy, letters, tables, forms, reports, or other material	in an attractive, acceptable form with all errors neatly corrected.
Writes	verbatim shorthand notes and minutes of meetings	at a speed of at least 80 words a minute.
Transcribes	from shorthand notes or voice recordings	with correct spelling, punctuation, capitalization, and form.
Compiles	statistical reports, itineraries, personnel records, or other minor administrative details	accurately.
Composes	routine correspondence	in a positive, grammatically correct manner.
Schedules	appointments, conferences, and meetings	in an organized, non-conflicting manner.
Relates	to co-workers, subordinates, superiors, and clients	in a professional, harmonious manner.
Supervises	work flow and subordinate workers	in an effective way.
Verifies	typed copy for neatness, spelling, and punctuation	according to accepted English and typing standards.
Communicates	with office visitors and telephone callers	with positive demeanor.

Action Verb	Focus	Criteria
Handles	routine payroll, petty cash, extensions, discounts, accounts receivable and payable, and other similar computations	with complete accuracy.
Maintains	various inter-related filing systems	with exactness.
Sorts and distributes (or collects)	incoming and outgoing mail	efficiently.
Duplicates	copies of correspondence and other material using carbon paper, copying, or duplicating machines	in an efficient way.
Converts	rough draft materials	to correct formats (correct spelling, punctuation, and grammatical constructs).

Major Learning Outcomes

STENOGRAPHIC-SECRETARIAL PROGRAM

STS 0101 - Beginning Shorthand

The student will

1. Read from shorthand outlines rapidly and accurately.
2. Write shorthand dictated for 3 minutes from practiced material at a rate of 50 words a minute with 95 per cent accuracy.

SES 0101 - Typewriting I

The student will

1. Operate the typewriter using the touch system on the keyboard.
2. Type basic forms of letters, tabulation, and simple reports.
3. Build a speed of at least 24 words a minute with no more than 5 errors.

MTB 0102 - Business Mathematics

The student will

1. Demonstrate an understanding of and skill in performing mathematical calculations necessary in the world of business.
2. Demonstrate the ability to work basic arithmetic computations essential for consumer and personal needs.

COM 0101 - Business Vocabulary and Spelling

The student will:

1. Correctly spell general and specific terms related to the position.
2. Use with facility the dictionary or thesaurus for purposes of spelling, word division, or extended meanings.
3. Demonstrate accurate knowledge of basic roots, prefixes, and suffixes as an aid in comprehension of printed and verbal information.
4. Learn the basic spelling rules necessary for plurals and added endings.

SES 0110 - Records Control

The student will

1. Apply the principles of effective management of records through class discussions and projects.
2. Define the techniques concerning storage, retention, transferring, and disposition of business records.
3. Apply the basic systems of alphabetic, numeric, geographic, and subject methods of filing through class projects.
4. Demonstrate basic concepts of computerized filing systems.

BAN 0101 - Business Principles

The student will

1. Analyze the free enterprise system through class projects and discussions.
2. Differentiate between the various forms of business ownership.

STS 0103 - Shorthand Dictation

The student will

1. Write shorthand dictated for 3 minutes from new material at a rate of 60 words a minute with 95 percent accuracy.
2. Transcribe mailable letters, dictated at a minimum speed of 50 words a minute, in 30 minutes.

SES 0102 - Typewriting II

The student will

1. Build typewriting speed to a minimum of 36 words a minute with 5 or fewer errors on a 5-minute writing.
2. Type mailable letters within a given framework of time.
3. Type more difficult letters, tabulations, and manuscripts on a production basis.

COM 0102 - English for Business

The student will

1. Convert rough draft/dictated material (letters, memos, reports) into desired format with correct spelling, punctuation, and grammatical constructs.
2. Edit rough drafts by identifying errors in mechanics as well as faulty modification, agreement, and/or parallel structure.

MAN 0105 - Human Relations

The student will

1. Demonstrate the ability to get along and to maintain harmonious relations with other people in the business world.
2. Gain insight into the behavior of others through the application of psychological principles.

SES 0109 - Business Machines

The student will

1. Operate a 10-key adding machine using the touch system.
2. Apply mathematical principles in solving problems using office adding machines and calculators.

ACC 0201 - Accounting I

The student will:

1. Work problems demonstrating the application of the accounting cycle.
2. Prepare the various financial statements needed in business.

STS 0105 - Shorthand Transcription

The student will

1. Type at the rate of 15 words a minute mailable letters, dictated at 60, 70, and 80 words a minute.
2. Write dictation given at rates of 80 to 140 words a minute for maintaining speed.

COM 0103 - Business Writing

The student will

1. Read and answer routine correspondence with accurate spelling, grammar, and punctuation, and will apply the principles of brevity, clarity, and diplomacy.

2. Will compile a vita, including letters of recommendation, certificates of proficiency or competencies, and character-reference letters.

3. Write either a proposal or term paper doing the necessary research and completing it in the necessary format.

SES 0104 - Typewriting III

The student will

1. Increase speed to 40 words a minute with a maximum of 5 or less errors on a 5-minute timed writing.

2. Decide on proper arrangement, form, number of carbon copies, etc., while typing business correspondence.

3. Develop techniques of duplication: carbon copy, spirit master, copying machines, mimeographing, and automatic typewriters.

STS 0104 - Shorthand Speedbuilding

The student will

1. Write shorthand dictated for 3 minutes from new material at a rate of 80 words a minute with 95 per cent accuracy of transcript.

2. Continue to develop new shorthand vocabulary.

SES 0105 - Typewriting IV

The student will

1. Increase speed to 50 words a minute with a maximum of 5 or less errors on a 5-minute timed writing.

2. Work in a simulated office typing kit, making judgments as needed, finding errors in source material, and arranging unusual or new kinds of typed material.

3. Transcribe from machine recordings business correspondence.

SES 0206 - Work Experience

The student will

1. Demonstrate acceptable office techniques when assigned to an actual office position.
2. Work harmoniously with the professional office staff.
3. Use this work experience as an opportunity to synthesize knowledge and experiences from all previous courses.

OPR 0101 - Office Practice (Proposed class to be substituted for BAN 0101 - Business Principles)

The student will

1. Compose and type correspondence.
2. Prepare minutes.
3. Handle a purchase order or a sales order routine from inception to completion.
4. Make travel arrangements including preparation of an itinerary.
5. Handle basic banking procedures.

FOLLOW-UP PROJECT
Pensacola Junior College
Business Education Dept.
Pat Trachy and Jan Martin

LEARNING OUTCOMES (Employer Expectations)

In an actual office situation, the Stenography-program graduate will be able to:

1. Write shorthand at a minimum speed of 80 words a minute.

2. Transcribe the material with at least 95% accuracy when tested on standard business-letter material dictated for a period of at least three minutes.

3. Transcribe in an acceptable business-letter form, with correct punctuation and spelling, from shorthand notes, in 20 minutes or less, two letters dictated at 70 words a minute.

4. Type a minimum of 55 gross words a minute when tested on straight-copy material for five minutes.

5. Type in an accepted style a business letter with multiple carbon copies, supplying correct punctuation, paragraphing, capitalization, and missing letter parts.

6. Type in an acceptable style, from unarranged copy, a boxed tabulation problem with centered column headings.

7. Type in acceptable style a manuscript from rough draft materials. The student should be able to provide for left-bound, top-bound, or unbound margins.

* * * * *

The Stenography-program graduate will be able to demonstrate acceptable office techniques when assigned to an actual position in a business office. These techniques will be measured by using a weighted check list of office activities. The student's performance will be rated jointly by an office supervisor and a classroom instructor using a scale from 0 to 5 for each activity. An average score of 3 is considered acceptable.

* * * * *

When assigned to an actual position in a business office, the Stenography-program student will be able to demonstrate good use of interpersonal skills. These skills will be measured by using a check list of traits and abilities deemed desirable in office employees. The student's performance will be rated by an immediate supervisor, who will be in a position to observe the employee in many different situations. The rating of traits will be on a scale from 1 to 5 with an average score of 3.5 being considered acceptable.

Some sample traits to be demonstrated are:

1. The ability to get along well with other people.
2. The ability to handle difficult "people" situations.
3. The ability to earn the respect and confidence of others.
4. The ability to take the initiative in assigned work.
5. The ability to accept and follow directions accurately.
6. The ability to adhere to established regulations.
7. The ability to maintain harmonious working relations with others.
8. The ability to work under pressure or abnormal conditions.
9. The ability to take justified correction or criticism.
10. The ability to be objective and impartial when working with others, regardless of friendly or unfriendly feelings toward co-workers.
11. The ability to keep confidential information secret.

SECRETARY

In completing this evaluation form, please use the following scale: Superior -- 4 points, Very Good -- 3 points, Average -- 2 points, Minimally Acceptable -- 1 point, Unacceptable -- 0 points, Not Applicable -- N/A

Types letters, reports, or other material from arranged copy in an attractive, acceptable form with all errors neatly corrected.	0 1 2 3 4 N/A
Writes shorthand notes taken from verbal dictation at a speed of at least 80 words a minute.	0 1 2 3 4 N/A
Transcribes from shorthand notes or voice recordings with correct spelling, punctuation, capitalization, and form.	0 1 2 3 4 N/A
Compiles statistical reports, itineraries, personnel records, or other minor administrative details accurately.	0 1 2 3 4 N/A
Composes routine correspondence in a positive, grammatically correct manner.	0 1 2 3 4 N/A
Schedules appointments, conferences, and meetings in an organized, non-conflicting manner.	0 1 2 3 4 N/A
Relates to co-workers, subordinates, superiors and clients in a professional, harmonious manner.	0 1 2 3 4 N/A
Supervises work flow and subordinate workers in an effective way.	0 1 2 3 4 N/A
Verifies types copy for neatness, spelling, and punctuation according to accepted English and typing standards.	0 1 2 3 4 N/A
Communicates with office visitors and telephone callers with positive demeanor.	0 1 2 3 4 N/A
Handles routine payroll, petty cash, extensions, discounts, accounts receivable and payable, and other similar computations with complete accuracy.	0 1 2 3 4 N/A
Maintains various inter-related filing systems with exactness.	0 1 2 3 4 N/A
Collects, sorts and distributes incoming and outgoing mail efficiently.	0 1 2 3 4 N/A
Duplicates copies of correspondence and other material using carbon paper, copying, or duplicating machines in an efficient way.	0 1 2 3 4 N/A
Converts rough draft materials to correct formats (correct spelling, punctuation, and grammatical constructs.)	0 1 2 3 4 N/A

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Stenographic Program
Janet Martin
Patricia Trachy

A PLAN OF UTILIZATION OF THE PRODUCT

By working with CAEL in our follow-up evaluation project, we had an opportunity to examine closely our stenographic program and courses as they now exist. This close inspection indicated a need to update and revise some aspects or our program. It is our hope that the changes and suggestions we have made will aid in adding a new course and deleting one that, in our opinion, has become not as necessary.

By clarifying ending competencies, we hope to be able to revamp our exemption examination policies--making them more realistic in evaluating student's skills. In addition, we have set as a goal the clarification of skills attainment when joining our program from another program or school.

We have already implemented the use of the Inventory Rating Scale in assessing progress of our stenographic work-experience students in the field. It has proved an effective device for interviewing techniques but modifications will have to be made in the future.

PROGRAM: MAJOR APPLIANCE SERVICING

PROGRAM MANAGER: PATRICK J. LOSEE
DEPARTMENT OF INDUSTRIAL TECHNOLOGY
PENSACOLA JUNIOR COLLEGE

The Major Appliance Servicing program is a one-year Certificate curriculum designed to prepare the student to begin employment immediately or to continue studies for two more terms and receive the Associate of Science in Major Appliance Servicing.

The graduate is trained to meet the job entry level skills of employment in appliance servicing. The student is proficient in the installation, servicing, and repair of air conditioners, refrigerators, washers, and other major appliances. An emphasis of the program is customer relations, serviceman attitudes, and business functions.

The curriculum consists of a core component which is common to several programs. The core consists of the following:

Basic Electricity with laboratory
Electronic Control Devices with laboratory
Wiring Diagrams

In addition, the curriculum contains a component of related education: safety, communications, mathematics, and customer or industrial relations. This related education is described in a separate section. Please refer to the Table of Contents.

Term I		Term II	
ELE 0101 Basic Electricity	4 cr.	AHR 0103 Basic Refrigeration	4 cr.
ELE 0102 Basic Electricity Lab	2	AHR 0104 Psychrometrics of Air	4
MAE 0101 Laundry Appliance	3	AHR 0105 Heating Systems Theory	4
--- ----- Laundry Appliance Lab	2	AHR 0106 Heating Systems Lab	2
ENC 0102 Communication Skills	3	MAP 0101 Applied Math I	5
OCS 0101 Occupational Safety	2	MAE 0106 Domestic Refrig. Lab	2
ELE 0105 Schem. & Wiring Dia.	4	CUR 0201 Customer Service	3

Term III	
ELE 0301 Electronic Control Devices	4 cr.
ELE 0302 Electronic Control Devices Lab	1
AHR 0107 Air Conditioning Service Procedure	4
AHR 0108 Air Conditioning Service Procedure Lab	2
PHY 0101 Applied Physics I	5
MAE 0104 Major Kitchen Appliance Theory	3
MAE 0105 Major Kitchen Appliance Lab	2

RELATED EDUCATION

Related education is a core consisting of five separate course areas:

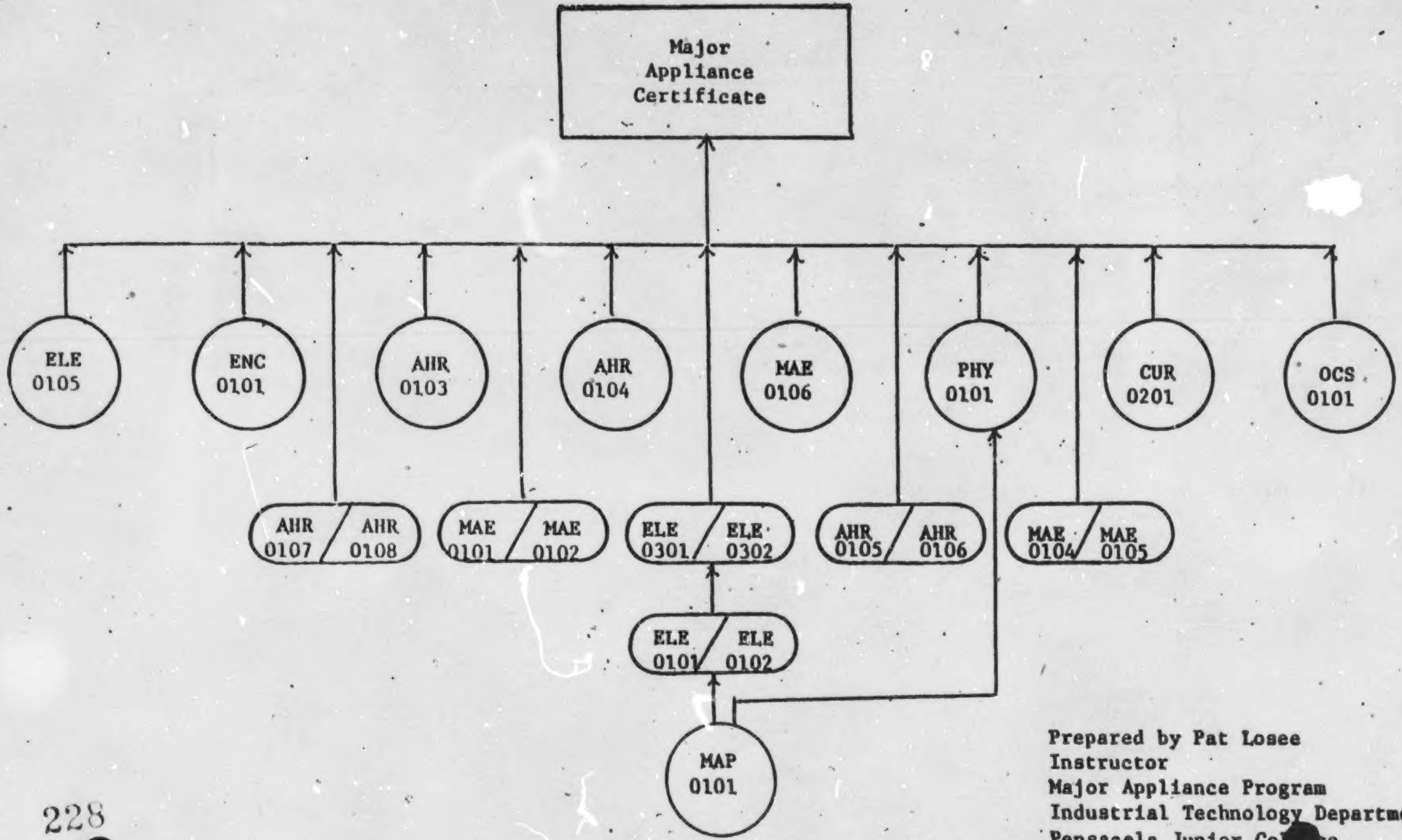
ENC 0101	Communication Skills
MAP 0101	Applied Mathematics
OCS 0101	Occupational Safety
CUR 0201	Customer Relations
INR 0102	Industrial Relations

This program includes the communications, mathematics, and safety. And because the graduate will be working in an industrial setting, the fourth component of the program is Customer Relations.

All five of these areas are to be found in the section marked "Related Education."

PENSACOLA JUNIOR COLLEGE

INDUSTRIAL TECHNOLOGY DEPARTMENT



Major Appliance Certificate
ELE 0105
ENC 0101
AHR 0103
AHR 0104
MAE 0106
PHY 0101
CUR 0201
OCS 0101
AHR 0107 / AHR 0108
MAE 0101 / MAE 0102
ELE 0301 / ELE 0302
AHR 0105 / AHR 0106
MAE 0104 / MAE 0105
ELE 0101 / ELE 0102
MAP 0101

Prepared by Pat Losee
Instructor
Major Appliance Program
Industrial Technology Department
Pensacola Junior College

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SCHOOL OF CAREER DEVELOPMENT
PENSACOLA JUNIOR COLLEGE
INDUSTRIAL - TECHNICAL DEPARTMENT
(904) 476-5410
1000 College Boulevard
Pensacola, Florida 32504

MEMORANDUM

TO: State Department Consultants
CAEL Project

FROM: "Core" Program Instructors
Pensacola Junior College/Ind. Tech. Dept.

DATE: May 14, 1979

REF: Modifications to the Core Program

In response to the advice of our combined Advisory Committee, we do not anticipate any changes in the format of the existing program for at least two years. Modifications that are under consideration at the present time include the number of class/lab hours and not the courses required.

Pat Losee
Stan Lowery /dk
John Burns

Program of Studies
for

MAJOR APPLIANCE CERTIFICATE

AHR 0103	Basic Refrigeration Fundamentals
AHR 0104	Psychrometrics of Air
AHR 0105	Heating Theory
AHR 0106	Heating Systems Lab
AHR 0107	Air Conditioning Service Procedures
AHR 0108	Air Conditioning Service Procedures Lab
CUR 0201	Customer Service
ELE 0101	Basic Electricity Prerequisite MAP 0101
ELE 0102	Basic Electricity Lab
ELE 0105	Schematic and Wiring Diagrams
ELE 0301	Electronic Control Devices Prerequisite ELE 0101
ELE 0302	Electronic Control Devices Lab
ENC 1013	Communication Skills
MAE 0101	Laundry Appliance Theory
MAE 0102	Laundry Appliance Lab
MAE 0104	Major Kitchen Appliances
MAE 0105	Major Kitchen Appliances Lab
MAE 0106	Domestic Refrigeration Lab
MAP 0101	Applied Math I
OCS 0101	Occupational Safety
PHY 0101	Physics Prerequisite MAP 0101

MAJOR LEARNING OUTCOMES
MAJOR APPLIANCE CERTIFICATE PROGRAM
PENSACOLA JUNIOR COLLEGE

MAE 0101 - Laundry Appliance Theory --- 4 Technical Credit Hours

Learning Outcomes:

1. Given a washer sequence chart and a schematic wiring diagram, the student will identify all timer contact points that are made in any given sequence. This should be done with 80% accuracy.
2. Given a drawing of a washing machine transmission, the student will identify and label all components housed internally. This should be done with 80% accuracy.
3. Given a complete drawing of all components of a washing machine or dryer, the student will be able to explain the sequence of events that take place from the minute the machine is turned on until it completes its cycle. This must be accomplished with 100% accuracy.

MAE 0102 - Laundry Appliance Lab --- 2 Technical Credit Hours

Learning Outcomes:

1. Given an electrical malfunctioning washing machine, the student, using electrical measuring equipment and the washer schematic wiring diagram, will locate and identify all malfunctioning components. This must be accomplished with 100% accuracy.
2. Given a washing machine transmission the student will select the proper tools and equipment to disassemble and inspect components according to manufacturer's specifications. This must be completed with 80% accuracy.
3. Given a washer or dryer in a simulated installation, the student will be able to install the appliance according to Nation, Local Codes or Manufacturer's Specifications. This installation must be completed with 100% accuracy.

MAE 0104 - Major Kitchen Appliances --- 3 Technical Credit Hours

Learning Outcomes:

1. Given a drawing of the Batch Feed and Continuous Feed Garbage Disposal, the student will identify and explain the operating procedures of each and the differences in the electrical connections of each. This should be completed with 80% accuracy.

2. Given a schematic wiring diagram and sequence chart of a dishwasher, the student will be able to identify and explain the function of all electrical components, the sequence in which they operate. This must be done with 80% accuracy.

3. Given a gas range installation situation, the student will list all the steps that must be taken when installing and adjusting the range according to Manufacturer's Specifications, Local and National Codes. This must be accomplished with 100% accuracy.

MAE 0105 - Major Kitchen Appliances Lab --- 2 Technical Credit Hours

Learning Outcomes:

1. Given a malfunctioning appliance, the student will select the proper tools, equipment to troubleshoot and locate and identify all malfunctioning components. This must be accomplished with 100% accuracy.

2. Given a dishwasher, the student will select the proper tools and equipment needed to remove and replace the rotary seals according to manufacturer's specifications.

3. Given a trash masher compactor schematic wiring diagram, the student will be able to identify and explain the operation of all switches and components. This should be done with 80% accuracy.

MAE 0106 - Domestic Refrigeration Lab --- 2 Technical Credit Hours

Learning Outcomes:

1. Given a compressor in a system, service values, gauge manifold set, volt-ohmmeter, ampmeter, supplies and tools, test the compressor electrically and mechanically recording pressure and electrical ratings. Recorded data must match instructor's pre-recorded data.

2. Given a refrigeration system with an in-operative compressor and necessary equipment, replace compressor according to manufacturer's specifications. This must be completed with 100% accuracy.

3. Given a system with defrost timer, voltmeter and necessary tools, check defrost timer. The reading must match predetermined reading by instructor.

4. Given a refrigerator system with defective relay, volt-ohmmeter, ampmeter and necessary tools, replace and wire up relay. Unit must operate within manufacturer's specifications after replacement.

ELE 0105 - Schematic and Wiring Diagrams --- 4 Technical Credit Hours

Learning Outcomes:

1. Given various simple electrical components, the student will identify and draw their sysbols, and construct simple circuits using electrical

diagrams and symbols. Identification and drawings should agree with those of the instructor.

2. Given a list with 15 electrical symbols, the student will identify and explain operation of the components represented by the symbols with at least 75% accuracy.

3. Given a list of electrical component symbols, connect these symbols into a logical schematic wiring diagram with no more than two errors.

4. Given a schematic wiring diagram, the student will be able to trace the circuits from the power source through the switches and safeties to the load/loads. This must be accomplished with 100% accuracy.

ELE 0101 - Basic Electricity --- 4 Technical Credit Hours

Learning Outcomes:

The student will be able to:

1. Differentiate conductors and insulators.
2. Explain electron flow vs conventional current.
3. Recognize basic circuit symbols.
4. Solve problems using Ohm's Law.
5. Explain the relationship of energy and power.

ELE 0102 - Basic Electricity Lab --- 2 Technical Credit Hours

Learning Outcomes:

1. Given various simple electrical components, identify and draw their symbols, and construct simple circuits using electrical diagrams and symbols. Identification and drawings should agree with those of the instructor.

2. Given various components and an ohmmeter, measure resistance value of each component. Readings must agree with those provided by the instructor.

3. Given selected electrical circuits and a voltmeter, measure the voltages of the circuit. Readings should agree with those of the instructor.

4. Given various simple electrical circuits and an ammeter, measure current in the circuits. Readings should agree with those of the instructor.

5. Given various electrical circuits, a VOM, and the necessary formulas, calculate values for current resistance and voltage. Calculated values must agree with meter readings.

ELE 0301 - Electronic Control Devices --- 4 Technical Credit Hours

Learning Outcomes:

The student will be able to:

1. Present the circuit symbols used to represent various components and discuss variations of the standard symbols.

2. Discuss the physical and static electrical characteristics of a number of devices.

3. Relate the static characteristics of each device studied to particular function in a variety of circuits.

ELE 0302 - Electronic Control Devices Lab --- 1 Technical Credit Hour

Learning Outcomes:

1. Given unit with electronic controls and the proper tools and equipment, service the electronic controls. Control must operate as designed according to manufacturer's specifications after completion of task.

2. Given unit with an electronic control with vacuum tube, replacement tube, and the proper tools and equipment, replace tube. Components must operate according to manufacturer's specifications after completion of task.

3. Given an air conditioning or refrigeration unit with a faulty solid state control and necessary tools and supplies, replace control. Replaced control must be:
   (a) in place securely, and
   (b) wired according to manufacturer's standards.

AHR 0103 - Basic Refrigeration Fundamentals --- 4 Technical Credit Hours

Learning Outcomes:

The student will be able to:

1. List the components of a refrigeration system and describe the function of each component.

2. Explain how the flow of refrigerant through the system produces cooling.

3. Explain refrigerant flow using mock up equipment.

ELE 0301 - Electronic Control Devices --- 4 Technical Credit Hours

Learning Outcomes:

The student will be able to:

1. Present the circuit symbols used to represent various components and discuss variations of the standard symbols.

2. Discuss the physical and static electrical characteristics of a number of devices.

3. Relate the static characteristics of each device studied to particular function in a variety of circuits.

ELE 0302 - Electronic Control Devices Lab --- 1 Technical Credit Hour

Learning Outcomes:

1. Given unit with electronic controls and the proper tools and equipment, service the electronic controls. Control must operate as designed according to manufacturer's specifications after completion of task.

2. Given unit with an electronic control with vacuum tube, replacement tube, and the proper tools and equipment, replace tube. Components must operate according to manufacturer's specifications after completion of task.

3. Given an air conditioning or refrigeration unit with a faulty solid state control and necessary tools and supplies, replace control. Replaced control must be:

   (a) in place securely, and
   (b) wired according to manufacturer's standards.

AHR 0103 - Basic Refrigeration Fundamentals --- 4 Technical Credit Hours

Learning Outcomes:

The student will be able to:

1. List the components of a refrigeration system and describe the function of each component.

2. Explain how the flow of refrigerant through the system produces cooling.

3. Explain refrigerant flow using mock up equipment.

AHR 0104 - Psychrometrics of Air --- 4 Technical Credit Hours

Learning Outcomes:

1. Given a sling psychrometer, observe and record wet bulb and dry bulb temperature. Recordings must be within ± 2 degrees F of that recorded simultaneously by the instructor.
2. Given the proper tools and supplies, determine the size unit necessary to condition a given space. Calculation must match instructor's predetermined calculations.

AHR 0105 - Heating Theory --- 3 Technical Credit Hours

Learning Outcomes:

The student will be able to:

1. Size orifice for natural and LP gas flow.
2. State BTU content of gases.
3. Cite code requirements of gas systems.
4. State venting principles.

AHR 0106 - Heating Systems Lab --- 2 Technical Credit Hours

Learning Outcomes:

1. Given a furnace with a defective limit switch and proper tools, install and/or adjust limit switch to 200°F. Switch must work so that flame cuts off at 200°F.
2. Given a heating unit and necessary tools, adjust heating devices. Task is accomplished when devices are adjusted to setting recommended by unit manufacturer.
3. Given a gas furnace and necessary supplies, light pilot and adjust burner for 3/8 and 1/2 inch contact with thermocouple.
4. Given a gas burner and a screwdriver, adjust burner to produce a soft blue flame not leaving the burner.

AHR 0107 - Air Conditioning Service Procedures --- 4 Technical Credit Hours

Learning Outcomes:

The student will be able to:

1. Develop an organized approach to A/C service.

2. Develop an order of priorities of trouble anaylsis.

3. Relate theory to manipulative skills.

4. Establish an attitude of good business practices.

AHR 0108 - Air Conditioning Service Procedures Lab --- 2 Technical Credit Hours

Learning Outcomes:

1. Given an evaporative condenser, necessary tools and cleaning materials, service evaporative condenser restoring unit to proper operation. Unit must operate in accordance with manufacturer's specifications on completion of task.

2. Given a refrigeration system without a evaporative condenser, the proper condenser, and necessary tools and supplies, install evaporative condenser according to local electrical code. The installed condenser must operate within manufacturer's specifications after installation.

3. Given a malfunctioning automatic ice maker and necessary equipment and tools, repair ice maker. Unit must operate within manufacturer's specifications after repair.

Prepared by:
Pat Losee

PENSACOLA JUNIOR COLLEGE
INDUSTRIAL TECHNOLOGY DEPARTMENT
MAJOR APPLIANCE PROGRAM

Learning Outcomes For Refrigeration Mechanic D.O.T. 827.361-014

1. Given a power source, conductor, load, and switch the major appliance student will identify and connect components in a logical sequence. To be rated as acceptable, the student must be able to complete this with 100% accuracy.

2. Given a list with 15 electrical symbols, the major appliance student will identify and explain operation of the components represented by the symbols. To be rated as acceptable, the student must be able to identify and explain the operation of at least 75% of the symbols.

3. Given the three major types of motor starting relays, the major appliance student will identify and explain the operation of each. To be rated as acceptable, the student must be able to explain the electrical connections and operation of at least two of the three types.

4. Given a drawing with a compressor, potential relay, thermostat transformer, start capacitor, fan relay, fan heat switch, heat limit switch, and contactor, the major appliance student will be able to identify and connect these components into a workable schematic drawing. To be rated as acceptable, the student must be able to do this with at least 75% accuracy.

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OCS 0101 - Occupational Safety --- 2 Technical Credit Hours

Learning Outcomes:

1. The student will demonstrate the ability to recognize a respiratory emergency. Ability will further be demonstrated to react within the 4 to 6 minute envelope from apparent death (clinical death) and actual massive deteriorization of brain cells (biological death). Student will demonstrate ability to perform effective BLS--Basic Life Support, (CPR) Cardio-Pulmonary Resuscitation.

2. The student will effectively demonstrate the ability to control severe hemorrhage through understanding of the three main lines of defense. Direct pressure will be initiated first. If further assistance is required, student will apply digital pressure on the supplying artery. Finally if all else fails, a TQT will be applied.

3. Student will demonstrate ability to react swiftly and accurately when it becomes apparent that a person has been poisoned. Steps will be initiated to dilute the poison as rapidly as possible and then vomiting will be induced except in cases of acids, alkalies, and petroleum products.

4. A complete in-depth study of the O.S.H.A. 1971 will create in the student an awareness of:

    (a) the law.
    (b) employer responsibilities.
    (c) employee rights.
    (d) understanding of the overall mission of the O.S.H.A.

5. The student will perform in a safety conscious manner in and around his working environment.

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5. Given standard wire tables and resistive properties of wire, the major appliance student will be able to calculate the length and resistance of copper and aluminum wire. To be rated as acceptable, the student must be able to do this with at least 75% accuracy.

6. Given a list of the components of refrigeration system, the major appliance student will explain how the flow of refrigerant through the system produces cooling. To be rated as acceptable, the student must be able to explain this in writing with at least 75% accuracy.

7. Given a working refrigeration system, pressure, temperature chart, and gauges, the major appliance student will be able to discharge and evacuate and recharge the system by using the pressure temperature chart. To be rated as acceptable, the student must be able to do this with at least 100% accuracy.

8. Given a partial drawing of electrical and refrigerant systems, the major appliance student will complete the electrical and refrigerant drawing. To be rated as acceptable, the student must be able to do this with at least 75% accuracy.

9. Given a piece of tubing, swages, hammer, and brazing equipment the major appliance student will prepare the tubing and select the proper brazing material and set up the torch to make a brazed connection. To be rated as acceptable, the student must be able to complete this connection using the proper amount of brazing material to have a leak proof connection.

10. Given a malfunctioning refrigerator or freezer, the major appliance student will select the tools and equipment needed to be able to analyze the problem or problems. To be rated as acceptable, the student must be able to select the tools and analyze the problem with 100% accuracy.

11. Given a list with five different metering devices, the major appliance student will identify and explain the operation orally or in written form. To be rated as acceptable, the student must be able to identify and explain the correct operation of at least four of these metering devices.

12. Given a thermostatic expansion valve, the major appliance student will demonstrate and explain the procedure necessary in increasing or decreasing superheat in the evaporator. To be rated as acceptable, the student must be able to explain the superheat adjustments with at least 75% accuracy.

PENSACOLA JUNIOR COLLEGE
INDUSTRIAL TECHNOLOGY DEPARTMENT
MAJOR APPLIANCE PROGRAM

Prepared by:
Pat Losee

Learning Outcomes For
Electrical Appliance Servicer
D.O.T. 827.261-010

1. Given a power source, conductor, load, and switch the major appliance student will identify and connect components in a logical sequence. To be rated as acceptable, the student must be able to complete this with 100% accuracy.

2. Given a list with 15 electrical symbols, the major appliance student will identify and explain operation of the components represented by the symbols. To be rated as acceptable, the student must be able to identify and explain the operation of at least 75% of the symbols.

3. Given a washing machine transmission, the major appliance student will dissassemble, check gears, bearings, and shaft for wear, replace lubrication, reassemble and check for proper operation. To be rated as acceptable, the student must be able to complete this project with 100% accuracy.

4. Given a washing machine, multimeter and ammeter, the major appliance student will use the multimeter and ammeter in troubleshooting the electrical circuitry. To be rated as acceptable, the student must be able to complete this project with at least a 75% accuracy.

5. Given an operating electric dryer, the major appliance student will examine the dryer during the operating cycle to detect excess vibrations over heating and loose parts. To be rated as acceptable, the student must be able to detect any malfunction with at least 75% accuracy.

6. Given a diagram of an electric dryer with automatic drying cycle on it, the major appliance student will trace the D.C. circuits and components. To be rated as acceptable, the student must be able to identify all components and explain the function of each with at least 75% accuracy.

7. Given an operating built-in electric oven, the major appliance student will check the operating temperature of the oven and calibrate the thermostat to within acceptable range of operation. To be rated as acceptable, the student must be able to make these adjustments with a 100% accuracy.

8. Given a free standing electric range and a list of electrical testing equipment, the major appliance student will select the proper testing equipment, the major appliance student will select the proper testing equipment needed to analyze the electrical circuitry and components. To be rated as acceptable, the student must be able to analyze the circuitry and components with at least 75% accuracy.

9. Given a malfunctioning dishwasher, the major appliance student will select the proper tools and equipment needed to troubleshoot the electrical and mechanical components. To be rated as acceptable, the student must be able to use the tools and equipment to locate the malfunctioning component or components with at least 75% accuracy.

10. Given a batch feed and a continuous feed garbage disposal, the major appliance student will explain the operation and the safety requirements to free a jammed disposal. To be rated as acceptable, the student must be able to explain this orally or in written form with 100% accuracy.

11. Given a real home (service call) situation, the major appliance student will orally and in written form, communicate the tasks and duties he has performed in the accomplishment of the assigned service call situation. To be rated as acceptable, the student must be able to communicate with at least 75% accuracy.

12. Given an appliance service manual and malfunctioning appliance, the major appliance student will use the service manual to troubleshoot, identify components, make repairs and check operation of the appliance. To be rated as acceptable, the student must be able to complete assigned project with 100% accuracy.

SKILL RATING SHEET FOR
IND/TECH EMPLOYERS

PAT LOSEE
INSTRUCTOR, MAJOR APPLIANCE
INDUSTRIAL TECHNOLOGY DEPT.
PENSACOLA JUNIOR COLLEGE

ENTRY LEVEL SKILLS (EMPLOYER EXPECTATIONS)
MAJOR APPLIANCE PROGRAM

Employers could expect the following major competencies from Industrial Technical students after completing the program of studies in Major Appliances:

Please indicate the degree of importance you attached to the entry level skills below:	Necessary	Helpful	Un-Necessary
1. Be able to correctly follow oral and written instructions.			
2. Be able to read and understand technical manuals, service changes, and any other correspondance related to his/her area of employment.			
3. Be able to have the basic math skills to complete work orders or job completion forms.			
4. Be able to analyze the basic functions of electrical components from schematic wiring and legends found on equipment.			
5. Be able to use and interpret the electrical measuring instructions involved in analyzing electrical circuitry.			
6. Be able to join tubing together using flaring tools and brazing equipment.			
7. Be able to read and comprehend refrigeration flow charts and pressure and temperature charts.			

SKILL RATING SHEET FOR
IND/TECH EMPLOYERS

PAT LOSEE
INSTRUCTOR, MAJOR APPLIANCE
INDUSTRIAL TECHNOLOGY DEPT.
PENSACOLA JUNIOR COLLEGE

ENTRY LEVEL SKILLS (EMPLOYER EXPECTATIONS)
MAJOR APPLIANCE PROGRAM

Employers could expect the following major competencies from Industrial Technical students after completing the program of studies in Major Appliances:

Please indicate the degree of importance you attached to the entry level skills below:	Necessary	Helpful	Un-Necessary
8. Be able to evacuate and recharge a sealed refrigeration system.			
9. Be able to install appliances according to national, local codes, or manufacturer's specifications.			
10. Be able to trouble-shoot and repair or replace the mechanical components of appliances.			
11. Be able to trouble-shoot and repair or replace the electrical components of appliances.			
12. Be able to project the image of your company in the way that he handles himself and communicates with the customers.			
13. Be able to use test equipment in the evaluation of the gas pressure system on appliances.			
14. Be able to adjust flame patterns on gas burning equipment.			

SKILL RATING SHEET FOR
IND/TECH EMPLOYERS

PAT LOSEE
INSTRUCTOR, MAJOR APPLIANCE
INDUSTRIAL TECHNOLOGY DEPT.
PENSACOLA JUNIOR COLLEGE

ENTRY LEVEL SKILLS (EMPLOYER EXPECTATIONS)
MAJOR APPLIANCE PROGRAM

Employers could expect the following major competencies from Industrial Technical students after completing the program of studies in Major Appliances:

Please indicate the degree of importance you attached to the entry level skills below:	Necessary	Helpful	Un-Necessary
15. Be able to disassemble and clean pilot and main burner components.			
16. Be able to make the conversion from natural to L.P. gas or vice versus on gas burning appliances.			
17. Be able to do the above items in a safe and efficient manner.			

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SKILL RATING SHEET FOR
VOC/TECH EMPLOYERS

Dr. Margaret Heath
Pensacola Jr. College

MAJOR LEARNING OUTCOMES (EMPLOYER EXPECTATIONS)
COMMUNICATION SKILLS

Employers could expect the following major competencies from voc/tech students after completing the course in COMMUNICATION SKILLS

Please rate the following communication skills for your job area.	NECESSARY	DESIRABLE	UN-NECESSARY
OBTAINING EMPLOYMENT			
When applying for employment, the potential employee will demonstrate appropriate speaking, listening, writing and reading skills.			
1. Be able to read and understand any written material involved in the job application process.			
2. Be able to complete all required application forms, write any necessary application letters and prepare a resume.			
3. Be able to take part in a successful job interview involving both general and technical questions.			
MAINTAINING EMPLOYMENT			
Once employed, the student (employee) should demonstrate appropriate communication skills necessary for keeping the job.			
1. Be able to communicate successfully with employers or supervisors regarding job responsibilities and/or job assignments.			
2. Be able to communicate information to a customer (client) and other employees in a suitable manner.			
3. Be able to take an order or message correctly from a phone conversation.			
4. Be able to listen to and correctly follow oral instructions			
5. Be able to ask appropriate questions to accomplish his assigned tasks.			
6. Be able to write any necessary work or supply orders.			
7. Be able to write any job related reports.			
8. Be able to write any job related memos or letters or bills.			
9. Be able to read and understand any job related materials such as technical manuals, shop procedures and business correspondence and memos.			
10. Be able to interpret material read and perform the necessary task correctly.			

PROGRAM: AIR CONDITIONING AND HEATING

PROGRAM MANAGER: D. STANLEY LOWERY
DEPARTMENT OF INDUSTRIAL TECHNOLOGY
PENSACOLA JUNIOR COLLEGE

The graduate of the one-year Air Conditioning and Heating Program is qualified to enter the job market as a mechanic—either domestic or commercial--or he may continue formal education for another year and earn the Associate of Science in Air Conditioning and Heating.

He/she has been trained to use the appropriate test instruments to measure the various quantities in the electrical circuit, and to recognize the schematic symbols for electrical components. He/she can use pressure charts and measuring equipment to analyze refrigerant systems and to analyze control systems. Furthermore, the graduate is taught the importance of interpersonal relationships among employer, co-worker, and customer.

The curriculum consists of

Term I		Term II	
ELE 0101 Basic Electricity	4 cr.	AHR 0103 Basic Refrigeration	4 cr.
ELE 0102 Basic Electricity Lab	2	AHR 0104 Psychrometrics of Air	4
AHR 0101 AC Controls	3	AHR 0105 Heating Theory	4
AHR 0102 AC Controls Lab	1	AHR 0106 Heating Lab	2
ELE 0105 Schematic & Wiring Dia.	4	ENC 0101 Communication Skills	3
MAP 0101 Applied Math I	5	CUR 0201 Customer Services	3

Term III	
ELE 0301 Electronic Control Devices	4 cr.
ELE 0302 Electronic Con. Dev. Lab	1
AHR 0107 Air Cond. Service Pro.	4
AHR 0108 Air Cond. Service Pro. Lab	2
PHY 0101 Applied Physics I	5
OCS 0101 Occupational Safety	2
AHR 0110 Commercial Air Cond. Bal.	3
AHR 0109 Commercial Air Cond. Sys.	2

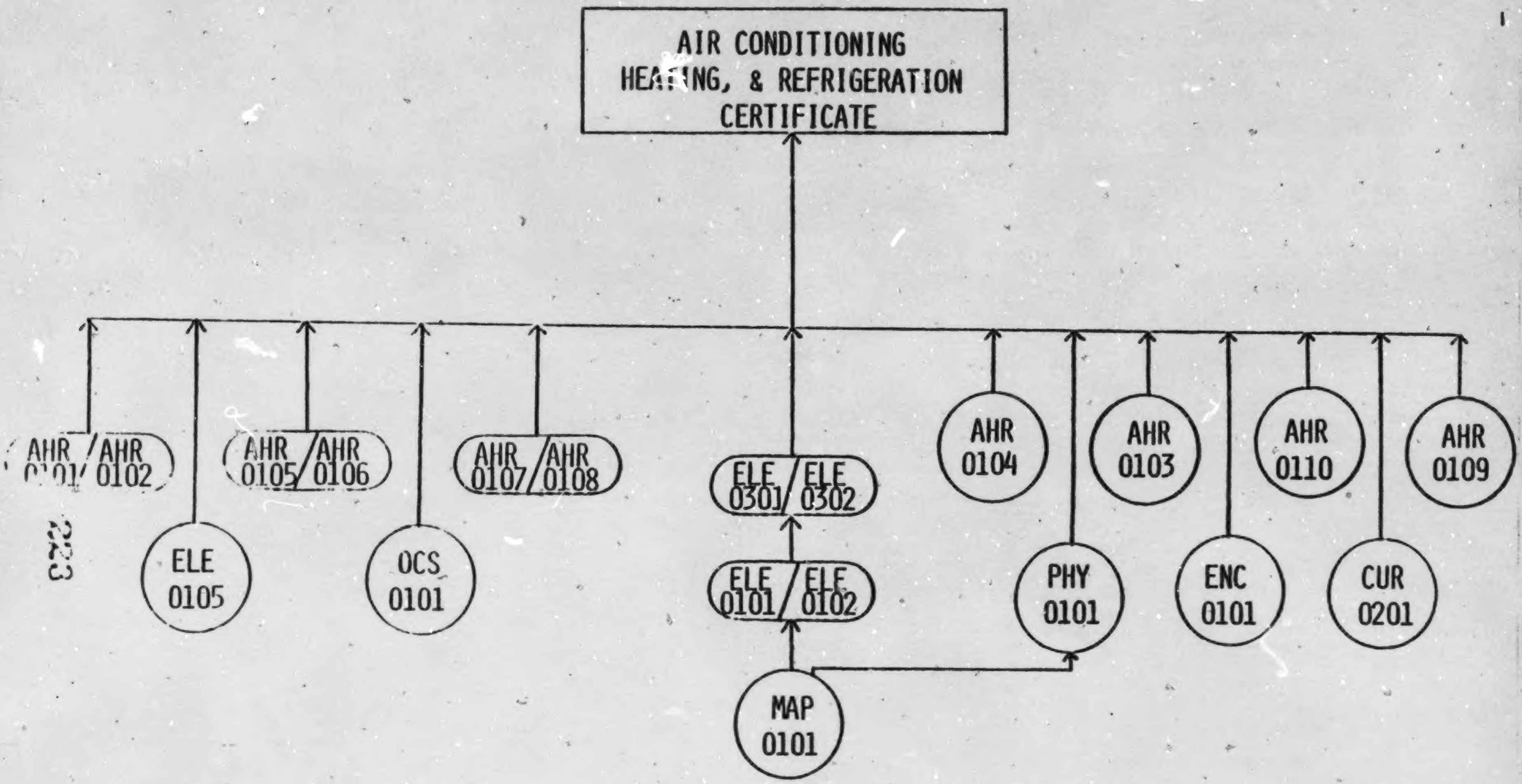
RELATED EDUCATION

Related education is a core consisting of five separate course areas:

ENC 0101	Communication Skills
MAP 0101	Applied Mathematics
OCS 0101	Occupational Safety
CUR 0201	Customer Relations
INR 0102	Industrial Relations

This program includes the communications, mathematics, and safety. And because the graduate will be working in an industrial setting, the fourth component of the program is Customer Relations.

All five of these areas are to be found in the section marked "Related Education."


AIR CONDITIONING
HEATING, & REFRIGERATION
CERTIFICATE
AHR 0101 / AHR 0102
ELE 0105
AHR 0105 / AHR 0106
OCS 0101
AHR 0107 / AHR 0108
ELE 0301 / ELE 0302
ELE 0101 / ELE 0102
MAP 0101
AHR 0104
PHY 0101
AHR 0103
ENC 0101
AHR 0110
CUR 0201
AHR 0109

Program of Studies
for
Air Conditioning Heating & Refrigeration Certificate

AHR 0103	Basic Refrigeration Fundamentals
AHR 0104	Psychrometrics of Air
AHR 0105	Heating Theory
AHR 0106	Heating Systems Lab
AHR 0107	Air Conditioning Service Procedures
AHR 0108	Air Conditioning Service Procedures Lab
CUR 0201	Customer Service
ELE 0101	Basic Electricity Prerequisite MAP 0101
ELE 0102	Basic Electricity Lab
ELE 0105	Schematic and Wiring Diagrams
ELE 0301	Electronic Control Devices Prerequisite ELE 0101
ELE 0302	Electronic Control Devices Lab
ENC 1013	Communication Skills
AHR 0101	AC Controls
AHR 0102	AC Controls Lab
AHR 0110	Commercial AC Balancing
AHR 0109	Commercial AC Systems
MAP 0101	Applied Math I
OCS 0101	Occupational Safety
PHY 0101	Physics Prerequisite MAP 0101

MAJOR LEARNING OUTCOMES

AIR CONDITIONING, HEATING, & REFRIGERATION CERTIFICATE PROGRAM

PENSACOLA JR. COLLEGE

AHR 0103 - Basic Refrigeration Fundamentals --- 4 Technical Credit Hours

Learning Outcomes:

The student will be able to:

1. List the components of a refrigeration system and describe the function of each component.
2. Explain how the flow of refrigerant through the system produces cooling.
3. Explain refrigerant flow using mock-up equipment.

AHR 0104 - Psychrometrics of Air --- 4 Technical Credit Hours

Learning Outcomes:

The student will be able to:

1. Given a sling psychrometer, observe and record wet bulb and dry bulb temperature. Recordings must be with ± 2 degrees F of that recorded simultaneously by the instructor.
2. Given the proper tools and supplies, determine the size unit necessary to condition a given space. Calculation must match instructor's predetermined calculations.

AHR 0105 - Heating Theory --- 3 Technical Credit Hours

Learning Outcomes:

The student will be able to:

1. Size orifice for natural and LP gas flow.
2. State BTU content of gases.
3. Cite code requirements of gas systems.
4. State venting principles.

AHR 0106 - Heating Systems Lab --- 2 Technical Credit Hours

Learning Outcomes:

The student will be able to:

1. Given a furnace with a defective limit switch and proper tools, install and/or adjust limit switch to 200 degrees F. Switch must work so that flame cuts off at 200 degree F.

2. Given a heating unit and necessary tools, adjust heating devices. Task is accomplished when devices are adjusted to setting recommended by unit manufacturer.

3. Given a gas furnace and necessary supplies, light pilot, and adjust burner for 3/8 and 1/2 inch contact with thermocouple.

4. Given a gas burner and a screwdriver, adjust burner to produce a soft blue flame not leaving the burner.

AHR 0107 - Air Conditioning Service Procedures --- 4 Technical Credit Hours

Learning Outcomes:

The student will be able to:

1. Develop an organized approach to A/C service.

2. Develop an order of priorities of trouble anaylsis.

3. Relate theory to manipulative skills.

4. Establish an attitude of good business practices.

AHR 0108 - Air Conditioning Service Procedures Lab --- 2 Technical Credit Hours

Learning Outcomes:

The student will be able to:

1. Given an evaporative condenser, necessary tools and cleaning materials, service evaporative condenser restoring unit to proper operation. Unit must operate in accordance with manufacturer's specifications on completion of task.

2. Given a refrigeration system without a evaporative condenser, the proper condenser, and necessary tools and supplies, install evaporative condenser according to local electrical code. The installed condenser must operate within manufacturer's specifications after installation.

3. Given a malfunctioning automatic ice maker and necessary equipment and tools, repair ice maker. Unit must operate within manufacturer's specifications after repair.

ELE 0101 - Basic Electricity --- 4 Technical Credit Hours

Learning Outcomes;

The student will be able to:

1. Differentiate conductors and insulators.
2. Explain electron flow vs conventional current.
3. Recognize basic circuit symbols.
4. Solve problems using Ohm's Law.
5. Explain the relationship of energy and power.

ELE 0102 - Basic Electricity Lab --- 2 Technical Credit Hours

Learning Outcomes:

The student will be able to:

1. Given various simple electrical components, identify and draw their symbols, and construct simple circuits using electrical diagrams and symbols. Identification and drawings should agree with those of the instructor.
2. Given various components and an ohmmeter, measure resistance value of each component. Readings must agree with those provided by the instructor.
3. Given selected electrical circuits and a voltmeter, measure the voltages of the circuit. Readings should agree with those of the instructor.
4. Given various simple electrical circuits and an ammeter, measure current in the circuits. Readings should agree with those of the instructor.
5. Given various electrical circuits, a VOM, and the necessary formulas, calculate values for current resistance and voltage. Calculated values must agree with meter readings.

ELE 0105 - Schematic and Wiring Diagrams --- 4 Technical Credit Hours

Learning Outcomes:

1. Given various simple electrical components, the student will identify and draw their symbols, and construct simple circuits using electrical diagrams and symbols. Identification and drawings should agree with those of the instructor.
2. Given a list with 15 electrical symbols, the student will identify and explain operation of the components represented by the symbols with at least 75% accuracy.

3. Given a list of electrical components symbols, connect these symbols into a logical schematic wiring diagram with no more than two errors.

4. Given a schematic wiring diagram, the student will be able to trace the circuits from the power source through the switches and safeties to the load/loads. This must be accomplished with 100% accuracy.

ELE 0301 - Electronic Control Devices --- 4 Technical Credit Hours

Learning Outcomes:

The student will be able to:

1. Present the circuit symbols used to represent various components and discuss variations of the standard symbols.

2. Discuss the physical and static electrical characteristics of a number of devices.

3. Relate the static characteristics of each device studied to particular function in a variety of circuits.

ELE 0302 - Electronic Control Devices Lab --- 1 Technical Credit Hour

Learning Outcomes:

The student will be able to:

1. Given unit with electronic controls and the proper tools and equipment, service the electronic controls. Control must operate as designed according to manufacturer's specifications after completion of task.

2. Given unit with an electronic control with vacuum tube, replacement tube, and the proper tools and equipment, replace tube. Components must operate according to manufacturer's specifications after completion of task.

3. Given an air conditioning or refrigeration unit with a faulty solid state control and necessary tools and supplies, replace control. Replaced control must be:

   (a) in place securely and
   (b) wired according to manufacturer's standards.

AHR 0101 - Air Conditioning System Controls --- 3 Technical Credit Hours

Learning Outcomes:

The student will be able to:

1. Describe the solenoid action.

2. Define a starter.

3. Identify pressure vs temperature controls.

AHR 0102 - Air Conditioning System Controls Lab --- 1 Technical Credit Hour

Learning Outcomes:

The student will be able to:

1. Given an air conditioning unit, the appropriate service manual, and the necessary equipment, tools and supplies, adjust the thermostat heat anticipated to manufacturer's specifications.

2. Given a domestic air conditioner with a faulty room thermostat control and the necessary equipment, install temperature control. Termperature control must operate within job specifications.

3. Given necessary equipment and supplies and a unit with maladjusted low pressure contol, check and adjust control to manufacturer's specifications for the particular job application.

4. Given necessary equipment and supplies and a unit with a faulty low pressure control, replace control in accordance with manufacturer's specifications for particular job application. The replaced low pressure control must operate in accordance with manufscturer's specifications.

AHR 0110 - Commercial A/C Balancing --- 3 Technical Credit Hours

Learning Outcomes:

The student will be able to:

1. Given a unit with an improper amount of air flow across the evaporator and the proper tools and equipment, determine the degree of imbalance of evaporator air flow and balance.

2. Given forced air heating or cooling unit with duct system attached, and necessary tools, check air distribution, noise, size, insulation and filters. Findings must agree with pre-determined findings.

AHR 0109 - Commercial A/C System --- 2 Technical Credit Hours

Learning Outcomes:

The student will be able to:

1. Given a duct system (as part of a heat pump system with restricted air flow), a velometer for checking air velocity and air quantities and tools for access to fan coil assembly, identify the restriction to the instructor.

2. Given a blueprint, air conditioning unit specifications, measuring tools, necessary supplies, sketch and record size of main trunk and supply ducts. Sketch and recorded duct sizes must be capable of supplying the CFM required to deliver air to the space shown on blueprint.

3. Given blueprints of space to be conditioned and necessary supplies, determine and record size and location of registers. Sketch and recorded register size must be rated acceptable on the criterion checklist.

OCS 0101 - Occupational Safety --- 2 Technical Credit Hours

Learning Outcomes:

1. The student will demonstrate the ability to recognize a respiratory emergency. Ability will further be demonstrated to react within the 4 to 6 minute envelope from apparent death (clinical death) and actual massive deteriorization of brain cells (biological death). Student will demonstrate ability to perform effective BLS--Basic Life Support, (CPR) Cardio-Pulmonary Resuscitation.

2. The student will effectively demonstrate the ability to control severe hemorrhage through understanding of the three main lines of defense. Direct pressure will be initiated first. If further assistance is required, student will apply digital pressure on the supplying artery. Finally if all else fails, a TQT will be applied.

3. Student will demonstrate ability to react swiftly and accurately when it becomes apparent that a person has been poisoned. Steps will be initiated to dilute the poison as rapidly as possible and then vomiting will be induced except in cases of acids, alkalies, and petroleum products.

4. A complete in-depth study of the O.S.H.A. 1971 will create in the student an awareness of:
    (a) the law.
    (b) employer responsibilities.
    (c) employee rights.
    (d) understanding of the overall mission of the O.S.H.A.

5. The student will perform in a safety conscious manner in and around his working environment.

STAN LOWERY, INSTRUCTOR
AIR COND., HEATING, & REFR.
INDUSTRIAL TECHNOLOGY DEPT.
PENSACOLA JUNIOR COLLEGE

SKILL RATING SHEET FOR
IND/TECH EMPLOYERS

ENTRY LEVEL SKILLS (EMPLOYER EXPECTATIONS)
AIR CONDITIONING, HEATING, & REFRIGERATION PROGRAM

Employers could expect the following major competencies from Industrial Technical students after completing the program of studies.

Please indicate the degree of importance you attached to the entry level skills below:	Necessary	Helpful	Unnecessary
1. Be able to correctly follow oral and written instructions.			
2. Be able to read and understand technical manuals, service changes, and any other correspondance related to his/her area of employment.			
3. Be able to have the basic math skills to complete work orders or job completion forms.			
4. Be able to analyze the basic functions of electrical components from schematic wiring and legends found on equipment.			
5. Be able to use and interpret the electrical measuring instructions involved in analyzing electrical circuitry.			
6. Be able to join tubing together using flaring tools and brazing equipment.			

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7. Be able to read and comprehend refrigeration flow charts and pressure and temperature charts.			
8. Be able to evacuate and recharge a sealed refrigeration system.			
9. Be able to install equipment according to national, local codes, or manufacturer's specifications.			
10. Be able to trouble-shoot and repair or replace the mechanical components of air conditioning, heating, & refrigeration equipment.			
11. Be able to trouble-shoot and repair or replace the electrical components of air conditioning, heating, & refrigeration equipment.			
12. Be able to project the image of your company in the way that he handles himself and communicates with the customers.			
13. Be able to use test equipment in the evaluation of the gas pressure system on equipment.			
14. Be able to adjust flame patterns on gas burning equipment.			
15. Be able to disassemble and clean pilot and main burner components.			
16. Be able to make the conversion from natural to L.P. gas or vice versa on gas burning appliances.			

SKILL RATING SHEET FOR
IND/TECH EMPLOYERS

STAN LOWERY, INSTRUCTOR
AIR COND., HEATING, REFR.
INDUSTRIAL TECHNOLOGY DEPT.
PENSACOLA JUNIOR COLLEGE

ENTRY LEVEL SKILLS (EMPLOYER EXPECTATIONS)
AIR CONDITIONING, HEATING, & REFRIGERATION PROGRAM

Employers could expect the following major competencies from Industrial Technical students after completing the program of studies.

	Necessary	Helpful	Unnecessary
Supervisory: E.g.: establishing job standards, preparing work orders, monitoring safety, maintaining records, ordering equipment, corresponding, resolving personnel problems, evaluating employee performance, analyze system malfunctions, prepare reports, etc.			
Controls: E. g.: trouble shooting and replacing thermostats, adjusting and replacing pressure controls, installing wires, checking and replacing timer, checking and replacing firestat, etc.			
Compressors: E.g.: trouble shooting compressor problems including overloads, crank case heaters, unloaders, and aligning open type compressors to motors, etc.			
Condensers and water towers: E.g.:installing and trouble shooting condensate drains and water cooled condensers for water flow, etc.			
Metering Devices: E.g., installing, trouble shooting and checking operation of capillary tubes, automatic and thermostatic expansion valves; includes checking strainer for obstructions and restrictions in capillary tubes, etc.			
Electrical and relays: E.g., checking voltage, amperage, etc.; checking continuity capicators, checking and replacing wiring, checking and replacing magnetic starters and coils, etc.			
Cabinets, duct location: checking air circulation around a condensing unit and distribution system, checking and replacing heaters, sizing duct system, etc.			
Tubing: E.g., working with copper tubing, includes flaring, swaging, brazing, bending, and soft-soldering, etc.			

PENSACOLA JUNIOR COLLEGE
INDUSTRIAL TECHNOLOGY DEPARTMENT
AIR CONDITIONING, HEATING, & REFRIGERATION PROGRAM

Prepared by:
Stan Lowery

Learning Outcomes For
Refrigeration Mechanic
D.O.T. 827.361-014

1. Given a power source, conductor, load, and switch the student will identify and connect components in a logical sequence. To be rated as acceptable, the student must be able to complete this with 100% accuracy.

2. Given a list with 15 electrical symbols, the student will identify and explain operation of the components represented by the symbols. To be rated as acceptable, the student must be able to identify and explain the operation of at least 75% of the symbols.

3. Given the three major types of motor starting relays, the student will identify and explain the operation of each. To be rated as acceptable, the student must be able to explain the electrical connections and operation of at least two of the three types.

4. Given a drawing with a compressor, potential relay, thermostat transformer, start capacitor, fan relay, fan heat switch, heat limit switch, and contactor, the student will be able to identify and connect these components into a workable schematic drawing. To be rated as acceptable, the student must be able to do this with at least 75% accuracy.

	Necessary	Helpful	Unnecessary
Valves: E.g.: installing and trouble shooting solinoid-operated valves (e.g. hot gas by-[illegible]s valves), etc.			
Motors: E.g.: identifying, checking, trouble shooting, and servicing motors, as well as adjusting belts and pulleys, servicing electric motors, etc.			
Accessories: E.g.: identifying, trouble shooting and repairing and/or replacing sight glass, driers, oil separators, mufflers, etc.			
Heating Systems-Heat pumps: E. g.: checking, trouble shooting and repairing control circuitry, cross-over valve, and check valves, etc.			
Heating Systems-Gas Furnace: E.g.: checking trouble shooting, and repairing pilot, regulator valve, limit switch, heat exchanger and adjustment of burner, etc.			
Heating System-Oil Furnace: E. g.: checking trouble shooting and repairing oil pump, couplings, ignition transformer and adjustment of primary air to achieve proper combustion, etc.			
Heating System- Electrical Furnace: E.g,, checking and trouble shooting, and repairing heating elements, fuse links, sequnecers and various controls, etc.			
Refrigerant: E.g., identifying type of refrigerant, trouble shooting refrigerant leaks and repairing by using the proper procedures - includes purging and use of vacuum pumps and manifold gauges, etc.			
Installing domestic and commercial air conditioning and refrigeration: E.g., installing cooling units, tubing, heat exchangers, temperature controls, evaporators, safety devices, etc.			
Special systems: E.g., repair or service of ice makers, water coolers, ice cream machines, etc.			

5. Given standard wire tables and resistive properties of wire, the student will be able to calculate the length and resistance of copper and aluminum wire. To be rated as acceptable, the student must be able to do this with at least 75% accuracy.

6. Given a list of the components of a refrigeration system, the student will explain how the flow of refrigerant through the system produces cooling. To be rated as acceptable, the student must be able to explain this in writing with at least 75% accuracy.

7. Given a working refrigeration system, pressure, temperature chart, and gauges, the student will be able to discharge and evacuate and recharge the system by using the pressure temperature chart. To be rated as acceptable, the student must be able to do this with at least 100% accuracy.

8. Given a partial drawing of electrical and refrigerant, the student will complete the electrical and refrigerant drawing. To be rated as acceptable, the student must be able to do this with at least 75% accuracy.

9. Given a piece of tubing, swages, hammer, and brazing equipment, the student will prepare the tubing and select the proper brazing material and set up the torch to make a brazed connection. To be rated as acceptable, the student must be able to complete this connection using the proper amount of brazing material to have a leak proof connection.

10. Given a malfunctioning refrigeration system, the student will select the tools and equipment needed to be able to analyze the problem or problems. To be rated as acceptable, the student must be able to select the tools and analyze the problem with 100% accuracy.

11. Given a list with five different metering devices, the student will identify and explain the operation orally or in written form of each. To be rated as acceptable, the student must be able to identify and explain the correct operation of at least four of these metering devices.

12. Given a thermostatic expansion valve, the student will demonstrate and explain the procedure necessary in increasing or decreasing superheat in the evaporator. To be rated as acceptable, the student must be able to explain the superheat adjustments with at least 75% accuracy.

PROGRAM: INDUSTRIAL ELECTRICITY

PROGRAM MANAGER: JOHN P. BURNS
DEPARTMENT OF INDUSTRIAL TECHNOLOGY
PENSACOLA JUNIOR COLLEGE

The graduate of the one-year Industrial Electricity program receives a Certificate of Occupational Competence. He/she may begin employment immediately as an electrician, electrical-equipment tester, corrosion-control fitter, signal maintainer, or continue formal education for two more terms and receive an Associate of Science in Industrial Electricity.

The program graduate has a solid foundation in the principles of electricity. Furthermore, he/she has a basic knowledge of the major codes and standards used in the electrical industry; and he/she has the ability to apply this knowledge to particular situations. He/she also has an understanding of employer and employee responsibilities as they relate to insurance, safety, unions, and customer relations.

The curriculum consists of

Term I

MAP 0101	Applied Math I	5 cr.
ELE 0101	Basic Electricity	4
ELE 0102	Basic Electricity Lab	2
ELE 0103	Residential Wiring	4
ELE 0104	Blueprint Reading	2
ELE 0105	Schem. & Wiring Dia.	4
OCS 0101	Occupational Safety	2

Term II

ELE 0201	3-Phase Circuits	4 cr.
ELE 0202	3-Phase Circuits Lab	2
ELE 0203	Commercial Wiring	4
PHY 0101	Applied Physics I	5
--- -----	Elective	2
INR 0102	Industrial Relations	3

Term III

ELE 0301	Electronic Con. Devices	4 cr.
ELE 0302	Elec. Con. Devices Lab	1
ELE 0303	Motor Control	4
ELE 0304	Motor Control Lab	1
ELE 0305	Electric Machinery	4
ELE 0306	Electric Machinery Lab	1
ENC 0101	Communication Skills	3

RELATED EDUCATION

Related education is a core consisting of five separate course areas:

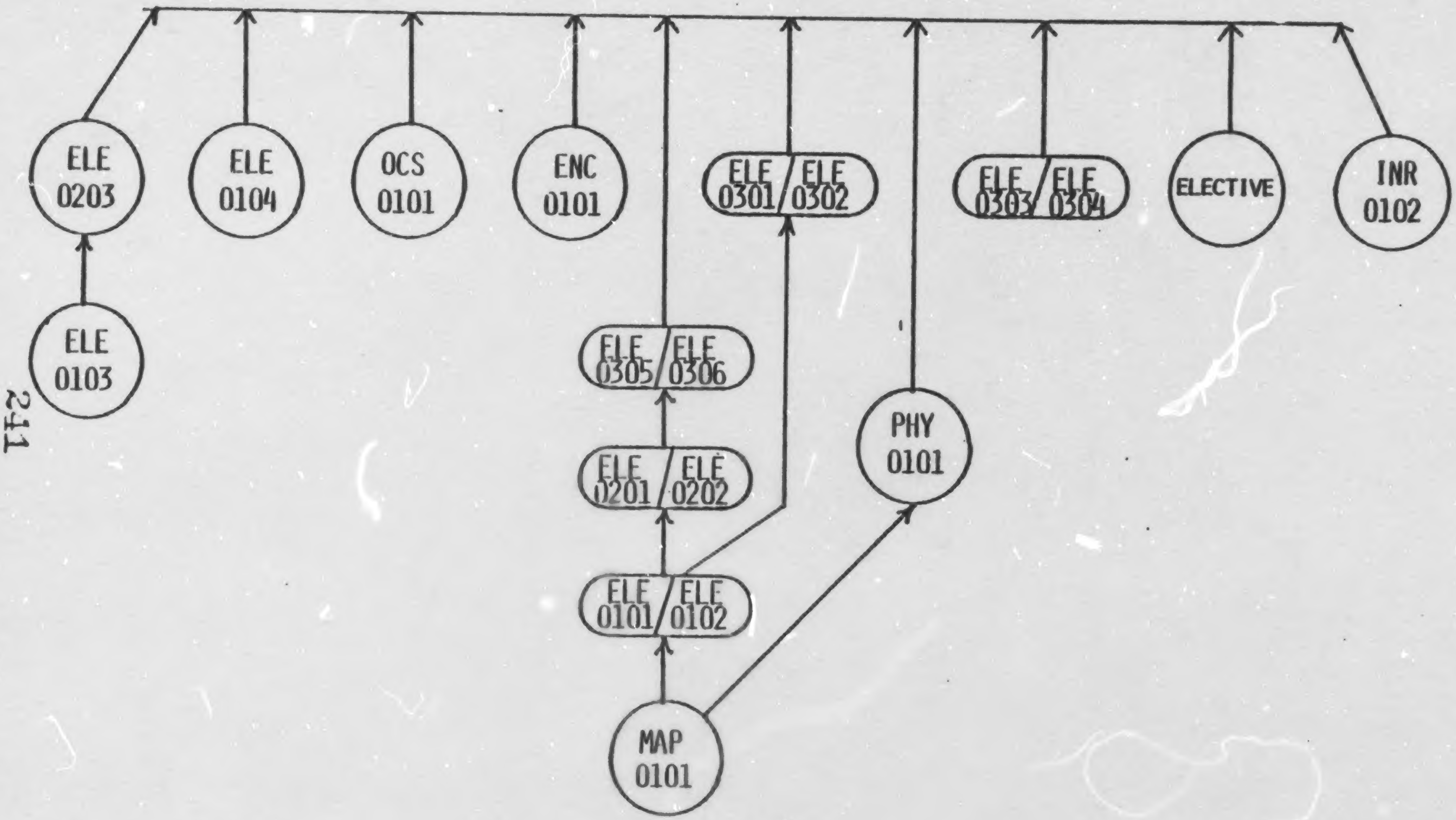
ENC 0101	Communication Skills
MAP 0101	Applied Mathematics
OCS 0101	Occupational Safety
CUR 0201	Customer Relations
INR 0102	Industrial Relations

This program includes the communications, mathematics, and safety. And because the graduate will be working in an industrial setting, the fourth component of the program is Industrial Relations.

All five of these areas are to be found in the section marked "Related Education."

INDUSTRIAL ELECTRICITY CERTIFICATE PROGRAM

PENSACOLA JUNIOR COLLEGE 1978-79


ELE 0203
ELE 0104
OCS 0101
ENC 0101
ELE 0301/ELE 0302
ELE 0303/ELE 0304
ELECTIVE
INR 0102
ELE 0103
ELE 0305/ELE 0306
PHY 0101
ELE 0201/ELE 0202
ELE 0101/ELE 0102
MAP 0101

INDUSTRIAL ELECTRICITY CERTIFICATE

ELE 0101	Basic Electricity Prerequisite or corequistie MAP 0101
ELE 0102	Basic Electricity Lab
ELE 0103	Residential Wiring
ELE 0104	Blueprint Reading
ELE 0105	Schematic and Wiring Diagrams
ELE 0201	Alternating Current - Three Phase Circuits Prerequisite ELE 0101
ELE 0202	Alternating Current - Three Phase Circuits Lab
ELE 0203	Commercial and Industrial Wiring Prerequisite ELE 0103
ELE 0301	Electronic Control Devices Prerequisite ELE 0101
ELE 0302	Electronic Control Devices Lab
ELE 0303	Motor Control
ELE 0304	Motor Control Lab
ELE 0305	Electric Machinery
ELE 0306	Electric Machinery Lab
OCS 0101	Occupational Safety
MAP 0101	Applied Math
PHY 0101	Applied Physics
ENC 0101	Communication Skills
INR 0102	Industrial Relations

MAJOR LEARNING OUTCOMES

INDUSTRIAL ELECTRICAL CERTIFICATE PROGRAM

PENSACOLA JR. COLLEGE

ELE 0101 - Basic Electricity --- 4 Technical Credit Hours

Learning Outcomes:

The student will be able to:

1. Differentiate conductors and insulators.
2. Explain electron flow vs conventional current.
3. Recognize basic circuit symbols.
4. Solve problems using Ohm's Law.
5. Explain the relationship of energy and power.

ELE 0102 - Basic Electricity Lab --- 2 Technical Credit Hours

Learning Outcomes:

The student will be able to:

1. Given various simple electrical components, identify and draw their symbols, and construct simple circuits using electrical diagrams and symbols. Identification and drawings should agree with those of the instructor.
2. Given various components and an ohmmeter, measure resistance value of each component. Readings must agree with those provided by the instructor.
3. Given selected electrical circuits and a voltmeter, measure the voltages of the circuit. Readings should agree with those of the instructor.
4. Given various simple electrical circuits and an ammeter, measure current in the circuits. Readings should agree with those of the instructor.
5. Given various electrical circuits, a VOM, and the necessary formulas, calculate values for current resistance and voltage. Calculated values must agree with meter readings.

ELE 0103 - Residential Wiring --- 4 Technical Credit Hours

Learning Outcomes:

The student will be able to:

1. Identify and explain the electrical symbols used on house plans.
2. Explain the factors which influence location, type and number of circuits, and outlets in a residence.
3. Discuss the installation and size requirements for these outlets and the circuits they are connected to.
4. Demonstrate correct wiring connections for outlets.
5. Discuss the parties that play a part in insuring that a building wiring does not present a hazard to life or property.

ELE 0104 - Blueprint Reading --- 2 Technical Credit Hours

Learning Outcomes:

Student will be able to:

1. Interpret commonly used abbreviations, notes, and other information on working drawings.
2. Explain how elevation drawings and floor plans can be used to get a three-dimensional visulization of the building.
3. Identify building parts by common name.
4. Interpret sectional drawings.
5. Use blueprints to determine various information that applies to specific trades (plumbing, electrical, sheetmetal, etc.)

ELE 0105 - Schematic and Wiring Diagrams --- 4 Technical Credit Hours

Learning Outcomes:

The student will be able to:

1. Given various simple electrical components, the student will identify and draw symbols, and construct simple circuits using electrical diagrams and symbols. Identification and drawings should agree with those of the instructor.

2. Given a list with 15 electrical symbols, the student will identify and explain operation of the components represented by the symbols with at least 75% accuracy.

3. Given a list of electrical components symbols, connect these symbols into a logical schematic wiring diagram with no more than two errors.

4. Given a schematic wiring diagram, the student will be able to trace the circuits from the power source through the switches and safeties to the load/loads. This must be accomplished with 100% accuracy.

ELE 0201 - Single and Three Phase Circuits --- 4 Technical Credit Hours

Learning Outcomes:

The student will be able to:

1. Explain what impedance is and what might makeup a particular impedance.

2. Discuss the terms apparent power, real power, and reactive power and relate them to currents and voltages on a phasor diagram.

3. Discuss WYE and Delta three phase connections - including the relationship between line and phase currents and voltages.

4. Solve problems involving various three phase and single phase circuits.

ELE 0202 - Single and Three Phase Circuits Lab --- 2 Technical Credit Hours

Learning Outcomes:

The student will be able to:

1. Use a combination of theory and measurements to solve lab problems.

2. Measure currents, voltages, and power in a variety of three-phase and single-phase circuits.

3. Connect loads in WYE and Delta Configuration.

ELE 0203 - Commercial & Industrial Wiring --- 4 Technical Credit Hours

Learning Outcomes:

The student will be able to:

1. Size branch circuit and feeder conductors, switches, devices, raceways, and overcurrent protection according to NEC minimum requirements.
2. Discuss the wiring methods commonly used in commercial and industrial buildings.
3. Use the NEC to answer specific questions about building wiring.

ELE 0301 - Electronic Control Devices --- 4 Technical Credit Hours

Learning Outcomes:

The student will be able to:

1. Identify the circuit symbols used to represent various components.
2. Discuss the physical and static electrical characteristics of a number of devices.
3. Relate the static characteristics of each device studied to particular function in a variety of circuits.

ELE 0302 - Electronic Control Devices Lab --- 1 Technical Credit Hour

Learning Outcomes:

The student will be able to:

1. Identify defective components with an ohmmeter.
2. Connect various components in various circuits.
3. Identify malfunction causes in various circuits.

ELE 0303 - Motor Control --- 4 Technical Credit Hours

Learning Outcomes:

The student will be able to:

1. Discuss the types of diagrams and terms used in motor control.

2. Discuss the factors that must be considered when selecting a particular control.

3. Explain various standard control circuits.

4. Size conductors, overload protection, switches, and disconnects for various motor circuits according to code rules.

ELE 0304 - Motor Control Lab --- 1 Technical Credit Hour

Learning Outcomes:

The student will be able to:

1. Connect a variety of control circuits.

2. Checkout said circuits before energizing.

3. Trouble shoot problem circuits.

ELE 0305 - Electric Machinery --- 4 Technical Credit Hours

Learning Outcomes:

The student will be able to:

1. Identify the major parts of DC and AC motors and generators and explain their functions.

2. Solve various problems involving motors, generators, and transformers.

3. Draw and contrast various transformer connections.

ELE 0306 - Electric Machinery Lab --- 1 Technical Credit Hour

Learning Outcomes:

The student will be able to:

1. Connect a variety of AC & DC motors and generators.

2. Measure current, voltage, RPM, torque and power on AC & DC motors and generators.

3. Make single-phase and three-phase transformer connections for various inputs and outputs.

SKILL RATING SHEET FOR
IND/TECH EMPLOYERS

INDUSTRIAL ELECTRICITY PROGRAM
INDUSTRIAL TECHNOLOGY DEPT.
PENSACOLA JUNIOR COLLEGE

ENTRY LEVEL SKILLS (EMPLOYER EXPECTATIONS)
INDUSTRIAL ELECTRICITY PROGRAM

Employers could expect the following major competencies from Industrial Technical students after completing the program of studies in Industrial Electricity:

Please indicate the degree of importance you attach to the entry level skills below:	Necessary	Helpful	Unnecessary
1. Solve electrical circuit problems using basic formulas and knowledge of electrical theory.			
2. Explain the factors which influence the location, type, and number of circuits and outlets in the building.			
3. Make correct wiring connections for outlets and switches according to code.			
4. Cite the National Electrical Code definition of various terms used throughout the code.			
5. Size circuits and circuit components for various loads according to conditions and code requirements.			
6. Interpret commonly used symbols, abbreviations, notes, and other information on building and electrical blueprints.			
7. Make correct wiring connections for various standard motor control circuits.			
8. Explain the sequence of operation for various control circuits.			
9. Describe the construction and connections of common DC and AC motors and generators.			

10. Make various single phase and three phase transformer connections and checks.			
11. Test various circuit components (diodes, coils, transistors, capacitors, resistors, SCR's, etc.) to determine if defective or not.			
12. Identify the function of various circuit components in various circuits.			

PROGRAM: WELDING

PROGRAM MANAGER: PAUL S. INACIO
DEPARTMENT OF INDUSTRIAL TECHNOLOGY
PENSACOLA JUNIOR COLLEGE

The one-year certificate program in welding produces a "hands on" technician capable of meeting quality performance standards. The graduate possesses job entry skills in the processes of shielded metal arc (stick electrode), tungsten inert gas (Tig - Heliarc), metallic inert gas (Mig), oxy-acetylene welding and flame cutting.

Employment usually begins as a third class welder in shipyards or construction. Exceptional graduates have started at second class, or higher.

The year-program graduate receives a Certificate of Occupational Competence. He/she may continue as a full-time or part-time student and earn the Associate of Science in Welding Technology.

Term I			Term II		
WEL 0101	Oxy-acetylene Theory	1 cr.	WEL 0201	Advanced Arc Weld Lab	4 cr.
WEL 0102	Oxy-acetylene Lab	1	WEL 0202	Heli-Arc Welding Lab	2
ENC 0101	Communication Skills	3	WEL 0203	Mig Welding Lab	2
WEL 0103	Arc Welding Princ.	2	MAP 0101	Applied Math I	5
WEL 0104	Arc Welding Lab	4	WEL 0204	Welding Estimating	2
DRA 0300	Basic Drafting	3	MEW 0102	Blueprint Reading	3
OCS 0101	Occupational Safety	2			

Term III		
WEL 0301	Pipe Welding	6 cr.
WEL 0302	Metallurgy	2
MEW 0301	Heat Treatment	2
PHY 0101	Applied Physics I	5
INR 0102	Industrial Relations	3

RELATED EDUCATION

Related education is a core consisting of five separate course areas:

ENC 0101	Communication Skills
MAP 0101	Applied Mathematics
OCS 0101	Occupational Safety
CUR 0201	Customer Relations
INR 0102	Industrial Relations

This program includes the communications, mathematics, and safety. And because the graduate will be working in an industrial setting, the fourth component of the program is Industrial Relations.

All five of these areas are to be found in the section marked "Related Education."

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INTRODUCTION

A far greater portion of the school tax dollar has been allocated to vocational technical education in this decade than in any previous period. Community colleges are building new industrial technology offices, classrooms, and labs in record numbers. This rapid growth is accompanied by some problems. The fast development of curriculum, the recruitment of a qualified teaching staff, the oversight in establishing uniform minimum entry level competencies for various programs, and a uniform criteria for awarding proficiency accreditation to individuals holding completion certificates from industry are some of the problems but not all the particulars left to be worked out. Instructors and administrators frequently have difficulty when confronted with the task of assisting a student to choose among the learning outcomes those which will most surely enable him/her to obtain employment upon graduation. Teachers and advisors are confused by conflicting information existing among instructors teaching the same program. According to (Cook, 77:5):

> ...This is, in fact, what faculty most often do. You select those learning outcomes which from your perspective make the greatest contribution. Perhaps your greatest difficulty is in communicating to others your basis for identifying certain learning outcomes as more beneficial than others.

Hence, a myriad of courses which may or may not serve the best needs of the students.

The recruitment of a qualified teaching staff is somewhat haphazard partially for the same reason. How can administrators be specific in requiring certain competencies from those from industry aspiring to become instructors if they are not first in agreement concerning the competencies the students are to be taught? Concerning both, Cook further states:

> We need to be splicit about what is to be learned; or as in the case of many adults with prior learning experiences (e.g. instructors recruited from industry), what has been learned.

A uniform curriculum must be carefully designed that will ensure that the student is getting the most valuable instruction for his/her time and money. Instructors must be able to document what they can do in line with college catalog descriptions and must meet quality performance standards. Wallace (1979) says it well:

> Educators in vocational technical education should be job tempered to explore with the students the career clusters. There should be a total commitment to honesty.

A task analysis will be made of the components of the A.S. degree welding program to ensure that they have continuity throughout the state. The prerequisite competencies will be defined clearly for those entering the program. Courses will be restructured to bring them more in line with industrial catalog descriptions and more information as to what a prospective employer expects from the graduate will be made available to the students.

PROCEDURE & RESULTS

MAIL SURVEY

1. Faculty Questionnaire (Refer to Appendix - Item A)

This questionnaire was sent to the senior welding technology instructor of ten junior and community colleges throughout the state offering curriculums leading to certificates of occupational proficiency and/or A.S. degrees in Welding Technology.

Of the four replies received:

- the first indicated that the minimum reading level for success in his/her programs should be the 10th grade as established by national level standards.
- the second indicated an 11.6 grade level.
- the third indicated an 8th grade level.
- the fourth indicated a 9th grade level.

The same replicants indicated respectively that the math levels should be as follows:

- First - 10th grade
- Second - 12th grade
- Third - 12th grade
- Fourth - 11th grade

As per question number 3, their replies did not indicate the need for any prerequisites to the courses as taught in the community colleges (e.g. The Pensacola Junior College list of course offerings, Appendix - Item B).

No comments were offered.

2. Welder Progress Chart (Appendix - Items B-1, & B-2)

A copy of this chart was sent to thirty randomly chosen metal fabricating facilities throughout the state. The replies were as follows:

Four letters were returned unopened marked undeliverable by the Postal Service. The eight replies that were received indicated the following:

- Oxy-Acetylene Welding Skills (in all positions).

  Necessary - Four
  Desirable - One
  Unnecessary - Three

- Flame Cutting Skills (oxy-acetylene).

  Necessary - Eight
  Desirable - Zero
  Unnecessary - Zero

- Shielded Metal Arc Welding (all positions) Using E6010, E7018, E6013 Electrodes.

  Necessary - Eight
  Desirable - Zero
  Unnecessary - Zero

- Qualification Tests on 3/8" Thick Mild Steel Plate, E6010-E7018 Electrodes (all positions).

  Necessary - Six
  Desirable - Two
  Unnecessary - Zero

- Tungsten Inert Gas Welding (all positions) Mild Steel, Stainless Steel and Aluminum.

  Necessary - Eight
  Desirable - Zero
  Unnecessary - Zero

- Metallic Inert Gas Welding (all positions) 3/8" Thick Mild Steel Plate.

  Necessary - Eight
  Desirable - Zero
  Unnecessary - Zero

  Note: The skill levels the employers indicated should receive greater emphasis are E6010-E7018 electrodes in all positions 3/8" thick mild steel guided bend tests in all positions - most important being vertical and overhead, and also practice with large size electrodes.

- MIG & TIG on Mild Steel, Stainless Steel, and Aluminum.

  In response to the entry level skills questionnaire (Appendix - Item 2) the prospective employers were unanimous in indicating that the competencies outlined were all necessary.

3. Personnel Managers (Appendix - Items 1, 2, & 3)

   Seven replies were received indicating the following:

   - Four stated that the curriculum as outlined to them is a well balanced program of studies academic and vocational. They felt that it will definitely help the graduate to be promoted in the future to the supervisory level.
   - The fifth respondent indicated that courses WEL 0103, WEL 0104, WEL 0201, and WEL 0203 are not necessary.
   - The sixth respondent indicated that the course titles in the accompanying A.S. degree and certificate of occupancy offerings list was was not definite enough for him to guess their content. He also felt that one course in history and one in the study of the U.S. Constitution could be eliminated and two other metal working courses could be introduced.
   - The seventh respondent indicated that a greater emphasis should be placed on teaching work habits, perhaps under Communication Skills (ENC 0101).

BACKGROUND & SIGNIFICANCE

Under the auspices of an endowment provided by the Lilly Foundation, a private non profit organization, fifty colleges have been enabled to pool their resources to clarify college learning outcomes. The focus of this project was two fold:

(1) To develop in participating institutions a realistic, cost-effective process for defining the knowledge and competencies to be gained in selected educational programs, and (2) to develop materials which will form a handbook on clarifying college learning outcomes.

Colleagues using these guidelines may find it profitable to share these materials with others in their institution in order to determine what implications such an approach to clarifying the learning outcomes may have for the total educational commitment of their institution.

MAJOR LEARNING OUTCOMES

WELDING TECHNOLOGY CERTIFICATE PROGRAM

PENSACOLA JR. COLLEGE

WEL 0101 OXY ACETYLENE THEORY 1 Technical Credit Hour

Learning Outcomes:

1. Given a written test consisting of 100 questions on safety based upon "Safety in Welding & Cutting", ANSI Z49.1 publication, the student will attain a score of 100. If not, the instructor will go over the material again.
2. Given a written test the student will describe the types of flames used in oxy acetylene welding and name the materials on which to use them. To be rated acceptable the student must attain a score of at least 60.

WEL 0102 OXY ACETYLENE LAB 1 Technical Credit Hour

Learning Outcomes:

1. Given an oxy acetylene apparatus the student will connect the regulators, hoses, and torch to the cylinders using the safety precautions learned in the theory class. The student must follow all the steps in the right order to be rated acceptable.
2. Given welding assignments of corner, cap, butt, and tee joints in the flat, horizontal, vertical, and overhead positions the student will produce weldments that can be subjected to a hammer test without weld failure.
3. Given a piece of cast iron the student will demonstrate his/her ability to prepare the material for brazing. The finished weldment must have proper fusion and present a good appearance.
4. Given 5 pieces of 16 or 20 ga. sheetmetal the student will construct a box (excluding a top) to be filled with water and tested for leaks. Any leaks will disqualify the student; he will have to practice and build another box.

WEL 0103 ARC WELDING PRINCIPLES 2 Technical Credit Hours

Learning Outcomes:

1. Given classroom written tests the student must attain scores of at least 60% to be rated acceptable. The student will have to attain a score of 100 on a safety test (the student will have to retake the test as many times as it becomes necessary until he reaches the desired level of safety awareness required by the instructor).

2. Given a questionnaire the student will be required to demonstrate his knowledge of the fundamentals of electric arcs, AC, DC, and high frequency use, differentiating various types of welding equipment and their typical applications in construction and industry. Scores of at least 60% correct responses will be required.

WEL 0104 ARC WELDING LAB 4 Technical Credit Hours

Learning Outcomes:

1. Given various materials - carbon steel, stainless steel, aluminum, cast iron, copper - the student will accurately identify them and select polarity and electrode to do the job. The student must do this with a 100% degree of accuracy.

2. Given a butt joint, tee joint, cap joint, or a corner the student will produce weldments that will pass visual inspection by the instructor.

3. Given the assignment of a guided bend test on 3/8 mild steel plate in all positions, the student will prepare the plates according to AWS specifications. To be rated acceptable the result of the non-destructive test must fall within the limits set by the AWS and/or ASTM.

DRA 0300 BASIC DRAFTING 3 Technical Credit Hours
(Engineering Dept)

WEL 0201 ADVANCED ARC WELDING LAB 4 Technical Credit Hour

Learning Outcomes:

1. Given welding assignments of difficult joint geometry the student will demonstrate his/her ability to handle these requirements of heavy industry and construction.

2. Given heavy sections to weld the student will demonstrate his/her ability to produce quality weldments using large diameter E6010 and E7018 electrodes.

WEL 0202 HELI ARC WELDING LAB 2 Technical Credit Hours

Learning Outcomes:

1. Given a tungsten inert gas (tig-heliarc) welding apparatus the student will set up the equipment connecting the shielding gas cylinder, hose, and regulator; will adjust gas flow; will select and prepare the correct tungsten electrode for DC or AC usage; will select rod; will adjust current; will activate

high frequency unit (if used). To be rated acceptable the student must be able to hook up the equipment and correctly take the necessary steps with no less than an 80% degree of accuracy.

2. Given tungsten inert gas welding assignments in the flat, horizontal, vertical, and overhead positions the student will produce weldments of satisfactory appearance and that can be tested by the guided bend method.

WEL 0203 MIG WELDING LAB 2 Technical Credit Hours

Learning Outcomes:

1. Given semi-automatic (MIG) welding apparatus the student will thread the consumable electrode through a portable semi-automatic torch (gun); will attach regulator to gas cylinder; will connect hose from regulator to welding power source; will select filler metal in accordance with material being used; will select wire guides; will adjust machine's polarity and will maintain recommended distance from work piece. The student must do this with a 90% to 100% degree of accuracy.

2. Given mild steel, stainless steel, or aluminum plates the student will produce weldments of top quality subjectable to passing destructive and non-destructive testing.

MAP 0101 APPLIED MATH I 5 Technical Credit Hours

(Math Dept.)

WEL 0204 WELDING ESTIMATING 2 Technical Credit Hours

Learning Outcomes:

1. Given information about a real or simulated job assignment the student will determine which is the least expensive and fastest welding method to be used.

2. Given the same set of conditions and information in learning outcome #1 the student will determine and justify in writing his choice for an alternate method which can also be used if the possibility exists.

MEW 0102 BLUE PRINT READING 3 Technical Credit Hours
(Engineering Dept.)

WEL 0301 PIPE WELDING 6 Technical Credit Hours

Learning Outcomes:

1. Given a pipe welding assignment (6" schedule 40 - mild steel) the graduate will align it observing propeil space allowances (according to AWS specifications); will tack it in four places; will place it in the Arkansas 45 Degree position and will weld it.

2. Given an oxy acetylene cutting torch the student will cut four 1 1/2" x 6" specimens (coupons) for the guided bend test in accordance with AWS and/or ASTM code qualifying requirements. To be rated acceptable all discontinuities must fall within the permissible limits set forth by the American Welding Society. The student by passing this test will be able to certify in all positions.

WEL 0302 METALLURGY 2 Technical Credit Hours

Learning Outcomes:

1. Given written and oral tests based upon text book lectures the student will be able to describe fundamental physical and chemical properties of the most common metals found in construction and industrial plants with a minimum of 60% degree of accuracy.

2. Given a questionnaire based on text book studies and lab experimentation the student will explain plastic deformation and give reasons for metal failure with a 60% degree of correctness.

MEW 0301 HEAT TREATMENT 2 Technical Credit Hours

Learning Outcomes:

1. Given written tests and/or oral quizzes about different heat treating methods the student will demonstrate his/her knowledge of the subject by a 60% degree of correctness in his/her answers.

2. Given different materials the student will demonstrate his/her ability to alter its properties by alternately heating and quenching.

PHY 0101 APPLIED PHYSICS 5 Technical Credit Hours
(Physics Dept.)

INR 0102 INDUSTRIAL RELATIONS 3 Technical Credit Hours
(Behavioral Science Dept.)

RECOMMENDATIONS

The writer believes that in order to be successful in the program the student needs to have measurable levels of basic skills. These can be readily ascertained by using the U. S. Department of Labor General Aptitude Test Battery (GATB). The courses requiring definate basic skills are designated by the numerals 1 to 4 on the modified map.

1. General Language Skills

    a. Word meanings, in isolation and context
    b. Usage of words
    c. Ability to read sufficiently well to successfully complete the job training program

Determined by a score of at least 80 on GATB Section V as measured by Part 4 - General and Verbal Aptitude.

2. Manual Dexterity Skills

    a. The student needs the ability to move his/her hands easily and skillfully

Score of at least 80-90 on GATB Section M (Manual Dexterity) and F (Finger Dexterity).

3. Numerical Skills

    a. Whole numbers
    b. Fractions
    c. Decimals

Score of at least 80 on GATB Section N as measured by parts:
    2 - Numerical or Math Aptitude
    6 - Math Aptitude

4. Form Perception Skills

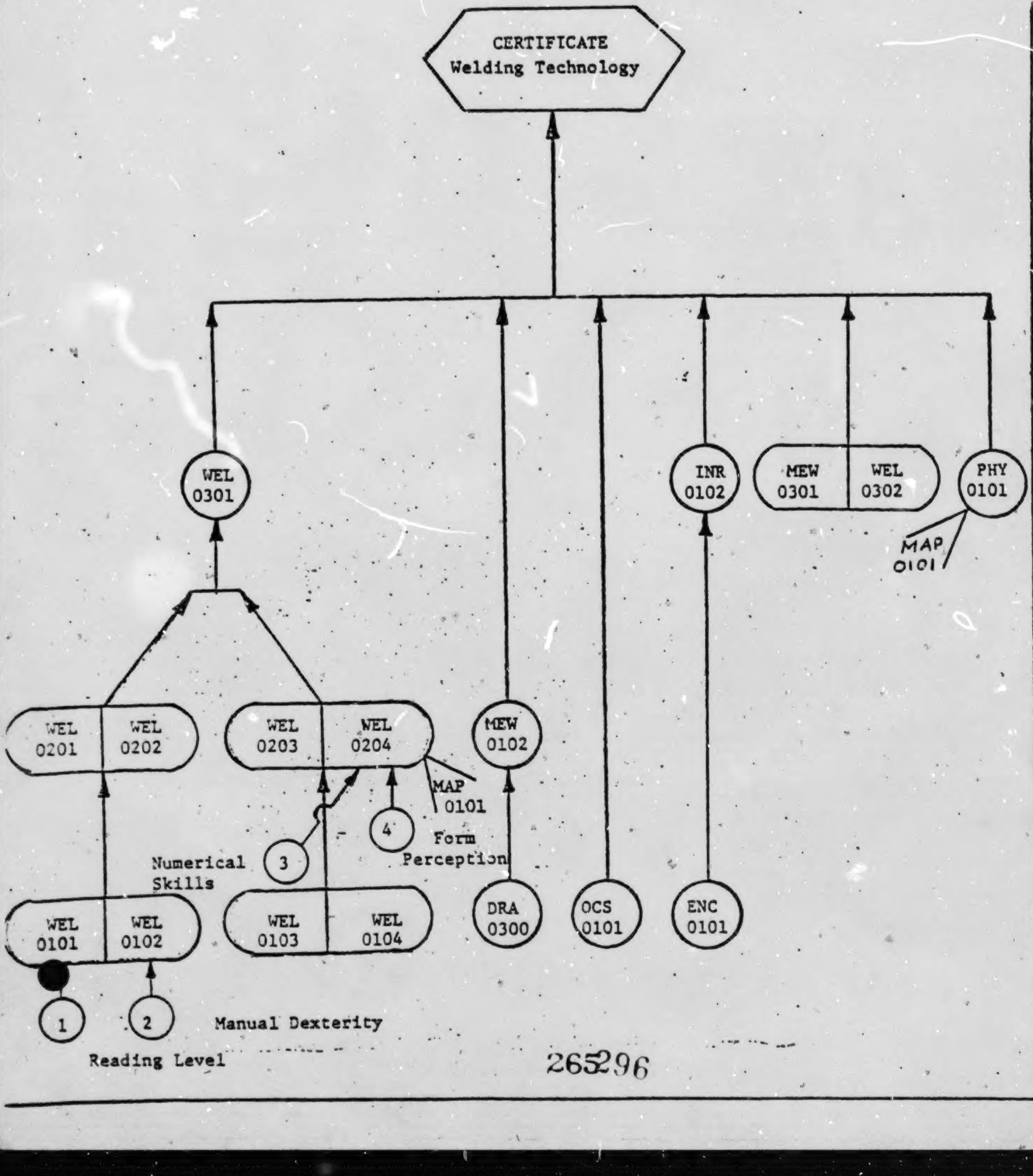
    a. Visualization
    b. Shape Differentiation

Score of at least 80-90 on GATB Section S as measured by part:
    1 - Spatial Relationships.

Any prospective students scoring below these levels should be provided with remedial studies to strengthen their background with the exception of those with visualization (form perception) or manual dexterity problems which may better benefit by choosing another occupational area of studies.

PENSACOLA JUNIOR COLLEGE

WELDING TECHNOLOGY


CERTIFICATE
Welding Technology
WEL 0301
INR 0102
MEW 0301
WEL 0302
PHY 0101
MAP 0101
WEL 0201
WEL 0202
WEL 0203
WEL 0204
MAP 0101
MEW 0102
4
Form Perception
Numerical Skills
3
WEL 0101
WEL 0102
WEL 0103
WEL 0104
DRA 0300
OCS 0101
ENC 0101
1
2
Manual Dexterity
Reading Level

ITEM A

SCHOOL OF CAREER DEVELOPMENT
PENSACOLA JUNIOR COLLEGE
INDUSTRIAL - TECHNICAL DEPARTMENT
(904) 476-5410
1000 College Boulevard
Pensacola, Florida 325

March 6, 1979

Dear Colleague:

I am sending this questionnaire to the faculty of every community college in the state offering certificate and/or A.S. degree programs in Welding Technology. I am doing a task analysis of the components of these programs for the Council for the Advancement of Experiential Learning (CAEL), to ensure that they have a degree of continuity.

Your cooperation in getting this information returned to me by March 16 will be greatly appreciated. Please help me get the job done on time.

Thank You,

Paul S. Inacio
Paul S. Inacio
PJC Welding Instructor

QUESTIONS:

1. What minimum reading level should a student have to be successful in your program?
2. What minimum math level should he/she have?
3. What prerequisites should the students have to the courses on the attached Certificate of Occupational Proficiency list? (Indicate None if you feel the list is complete).

NOTE: Please add any comments to the remainder of this page and/or the other side.

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SKILL RATING SHEET
IND/TECH EMPLOYERS

PAUL S. INACIO
INSTRUCTOR OF WELDING
INDUSTRIAL TECHNOLOGY DEPT.
PENSACOLA JUNIOR COLLEGE

ENTRY LEVEL SKILLS QUESTIONNAIRE
WELDING TECHNOLOGY

Employers could expect the following major competencies from students that have completed the program of studies in Welding Technology:

Please indicate the degree of importance you attach to the entry level skills listed below:	Necessary	Desirable	Unnecessary
1. Be able to follow procedural instructions oral and written.			
2. Be able to select, organize, and rehearse ideas to form main concepts.			
3. Be able to communicate verbally on the minimum level of the 8th grade.			
4. Be able to perform arithmatic operations, whole numbers, fractions, and decimals.			
5. Be able to understand written technical information.			
6. Be able to perceive pertinent detail in pictorial or graphic representations, drawings, or sketches.			
7. Be able to make visual comparison and see slight differences in shapes, shadings, widths, and lengths of objects.			
8. Be able to coordinate eyes, hands, and fingers, in making precise movements.			
9. Be able to fit up and align intricate parts.			
10. Be able to move hands easily and skillfully with a reasonable level of speed.			

11. Be able to be trained to use various types of welding and flame cutting equipment with a high degree of accuracy.			
12. Be able to identify metals.			
13. Able to set up own equipment and connect power cables from power source and items to be welded.			
14. Able to take fire and other safety precautions.			
15. Able to adjust controls for polarity.			
16. Able to produce welds subject to x-ray analysis, magna-flux inspection, water tight or other tests.			
17. Able to weld in flat, horizontal, vertical, and overhead positions.			
18. Able to set up and operate inert gas welding equipment (mig & tig).			
19. Able to do fusion welding (oxy-acetylene welding).			
20. Able to select current and/or polarity to use with an electrode in accordance with AWS recommendations.			
21. Ability to do the work of the position without more than average supervision.			
22. Able to use measuring instruments.			
23. Able to maintain tools and equipment.			
24. Able to work as part of a team.			

ITEM C-1

SCHOOL OF CAREER DEVELOPMENT
PENSACOLA JUNIOR COLLEGE
INDUSTRIAL · TECHNICAL DEPARTMENT
(904) 476-5410
1000 College Boulevard
Pensacola, Florida 32504

March 6, 1979

Dear Sir:

I am sending this survey to personnel managers of thirty randomly selected metal fabricating facilities throughout the state. I am conducting a task analysis of the components of certificate and A.S. degree programs in Welding Technology offered at community colleges to establish their relevance to students' employability and success in the field. This is part of a broader study I am conducting for the Council for the Advancement of Experiential Learning (CAEL).

Your cooperation in getting this information back to me by March 16 will be greatly appreciated. Please help me get the job done on time.

Thank You,

Paul S. Inacio
Paul S. Inacio
PJC Welding Instructor

A. Please examine the attached list of academic courses and please indicate which courses would most likely help the graduate in the promotion consideration process.

B. Please list below any subjects you believe need to be taught in the program.

C. The courses as presently taught at PJC are exactly what we expect the graduate at the technician level to know. Yes ☐ No ☐

These courses are not necessary:

These courses should be taught:

DISCUSSION

Although most people in the welding education field and industry at large realize that welding education constitutes an important field within the economy of the country, little is known outside one's institution or plant about the training of welding technicians. With this in mind and being Pensacola Junior College's delegate to the CAEL Workshops in Orlando, dealing with competency based education I embarked upon this study with a great deal of expectancy, determined to produce an in depth survey of academic welding schools in the state of Florida. It has disappointed me somewhat that so many of my colleagues did not realize the value of such a survey as indicated by the amount of responses received from them. A portion of the material used in the questionnaires came from the Counseling Department at PJC (e.g. the A.S. and certificate of occupational proficiency in Welding Technology course offering list). I decided to use this material after reading two articles; the first, a study conducted by Mr. Robert A. Doughty of the Hobart School of Welding (Troy, Ohio), and the second by Professor Robert L. Sysum of Los Medanos Community College (California) entitled respectively, "How Technical Schools Teach Welders" and "Surveying the Welding Schools." I was very gratified to find out that our program offerings as listed in our institution's catalog are comprehensive enough to rank PJC among some of the most outstanding upper level schools where welding technology is taught. Mr. Sysom's article was the result of a survey of 701 schools including 59 personal visits.

Industry's response, although not reaching the desired levels, was sufficiently helpful and provided a greater base from which to effect positive changes in curriculum throughout the state. In welding technology there are many specialized areas such as, for instance, welding Titanium and Vanadium, exotic metals used in the aerospace industry which would be costly and impractical for a tax supported institution to teach on a ragular basis, because of the limited employment opportunities that would be available to the graduates.

Another finding that lent a great deal of significance to the academic programs was the personnel managers assessment of the curriculum and the emphasis they placed on promoting workers who have a technical degree to complement the skill of the craft.

RECOMMENDATIONS

The writer believes that the skill of an all around metals fusion technician-welder is not acquired by a few months on the job or by merely being in a place where welding is done. Skill is acquired only through a definite step by step training program under the supervision of a craftsman-instructor who cares and knows what he/she is supposed to teach. This type of training takes place as a result of a cooperative plan - carefully, consciously, deliberately.

The writer recommends, based upon the findings of this study, that the following minimum learning outcomes be adopted by every community college offering welding technology programs in Florida to ensure uniformity and increase the employability skills of the students (refer to learning outcomes for welder, arc D.O.T. 810.384-014 and welder, experimental D.O.T. 119.281-022). The basic skills the student should have in order to be successful in the program ought to be determined by the GATB (General Aptitude Test Battery as per attached instructions).

Although all ten community colleges in Florida for the sake of continuity ought to align their programs with one another, enough flexibility should be retained by individual institutions to accommodate special needs, as for instance, training workers for a new industry moving to their locality and having a specialized need. A greater emphasis must be placed on remedial studies to strengthen the background of those students which perform poorly on the GATB tests.

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PENSACOLA JUNIOR COLLEGE

INDUSTRIAL TECHNOLOGY DEPARTMENT

Paul S. Inacio
Instructor

Learning Outcomes For:
Welder, Arc. D.O.T. 810.384-014
(Certificate Graduate)

1. Given a layout, blue print, diagram, work order, welding procedure, or oral instructions, the graduate will select the proper arc welding source to do the job. To be rated as acceptable the graduate must do this with 100% accuracy.

2. Given a power source, transformer, rectifier, or motor generator, the welding graduate will connect the power cable and ground to the item to be welded. To be rated as acceptable the graduate must be able to differentiate AC current, DC reverse, and DC straight polarity usage with a 100% degree of accuracy.

3. Given electrodes AWS classification E6010, E7018, and E7024, the welding graduate will identify the correct polarity to be used and will be able to explain the significance of the electrode's numbering code and their typical applications. To be rated as acceptable the graduate must do this with a 100% degree of accuracy.

4. Given a welding assignment, the welding graduate will prepare the parts to be joined by cleaning or degreasing the weld joint using a wire brush, portable grinder, or chemical bath. If needed, the student will preheat the work piece using hand torch or heating furnace. To be rated as acceptable, all visible traces of contamination must be removed from the surfaces.

5. Given the prepared work piece, the welding graduate will securely clamp them together using tools of the trade, assemble them in jigs or fixtures, and will proceed to tack them securely together. To be rated as acceptable the space allowances and parts alignment will have to be done with a 100% degree of visual accuracy.

6. Given a tungsten inert gas (tig) apparatus, the graduate welder will set up the equipment connecting the shielding gas cylinder, hose, and regulator; will adjust the gas flow; will select and prepare the correct tungsten electrode for DC or AC usage; will select the rod and non consumable electrode to be used on the material to be welded; will adjust current; will activate cooling water flow (if used), and will activate high frequency unit (if used). To be rated acceptable the graduate must perform these tasks with a 100% degree of accuracy and must perform weldments in the flat, horizontal, vertical, and overhead positions.

7. Given a metallic inert gas (mig) welding apparatus, the graduate will thread the consumable electrode through a portable semi automatic torch (gun); will attach regulator to gas cylinder; will connect hose from regulator to welding power source; will select filler metal in accordance with material being used; will select wire guides; will adjust machine's polarity; and will maintain recommended distance from work piece. To be rated as acceptable the graduate must do these with a 100% degree of accuracy and perform weldments in the flat, horizontal, vertical, and overhead positions.

8. Given various materials, carbon steel, stainless steel, aluminum, cast iron, copper, etc..., the welder graduate will accurately identify them and select the polarity and electrodes to be used to do the job. To be rated as acceptable the graduate must do this with a 100% degree of accuracy.

9. Given a guided bend test on 3/8" mild steel plate, the graduate will prepare the bevel by flame cutting and/or grinding; will prepare the root face; will observe space and alignment allowances closely; will produce a fillet weld using a E6010 electrode or E7018 (with a tig root pass); will cut two specimens (coupons) 1 1/2" X 6" from across the welded area from each, the vertical and overhead positions. To be rated as acceptable the amount of discontinuities must fall within the permissible limits set forth by the American Welding Society (AWS) and/or American Society for Testing Materials (ASTM).

10. Given a pipe welding assignment (6" schedule 40 mild steel), the graduate will align it; will observe the space allowance; will tack it in four places; will place it on a positioner on the Arkansas 45° position, and will weld it. Upon completing the weld the graduate will cut four 1 1/2 X 6" specimens (coupons) for the guided bend test in accordance with AWS and/or ASTM code qualifying requirements. To be rated as acceptable all discontinuities must fall within the prescribed limitations of these codes.
Note: Passing the test on the 45° position qualifies the operator for pipe welding in all positions.

11. Given a plate or pipe welding assignment, the graduate will take steps to ensure correct alignment, correct fusion, correct amount of penetration, absence from gas pockets (porosity), slag inclusions, and underbead cracking. To be rated as acceptable the results of non destructive testing (ultrasonic, radiography, or magnetic particle) must fall within the limits prescribed by the AWS and/or ASTM.

12. Given a written or oral questionnaire on trade safety based on the following publications, "Safety In Welding and Cutting" ANSI Z49.1 and "Recommended Safe Practices for Gas Shielded Arc Welding" AWS A6.1, the graduate must attain a score of at least 90% correct replies.

PENSACOLA JUNIOR COLLEGE Paul S. Inacio

INDUSTRIAL TECHNOLOGY DEPARTMENT

Learning Outcomes For:
Welder, Experimental, D.O.T. 119.281-022
(A.S. Degree Graduate)

1. Given engineering data the graduate welding technician will analyze it and will weld experimental parts and assemblies to determine the strength of the weld metal. To be rated as acceptable the graduate must be able to interpret drawings, sketches, layouts, diagrams, work orders, welding procedures, or oral instructions with a 90% to 100% degree of accuracy in a period of time established by the prospective employer.

2. Given an engineering drawing, the graduate welding technician will analyze it to plan welding operations in cost effective ways. To be rated as acceptable the graduate will make recommendations concerning the type of power source to be used, the type of filler metal (using electrode deposition rate charts), and justify his judgement with a 100% degree of accuracy in a period of time established by the prospective employer.

3. Given an experimental welding assignment, the graduate welding technician will develop templates and other work aids to hold and align parts. To be rated as acceptable the graduate must perform these tasks within an amount of time specified by the prospective employer.

4. Given a questionnaire on various types of metals, the graduate welding technician will explain the application of heat treatment to preserve the grain structure of metals (preheat, post heat, annealing, etc...). To be rated as acceptable the graduate must answer the questions with an 80% to 90% degree of accuracy.

5. Given an experimental welding assignment on structural steel members, using the shielded metal arc process (SMAW), the welding technician graduate will connect the power cable and ground to the item to be welded. To be rated as acceptable the graduate must be able to differentiate alternating current, direct current, reverse polarity, and direct current straight polarity usage with a 100% degree of accuracy.

6. Given an experimental welding assignment, the welding technician graduate will prepare the parts to be joined by cleaning or degreasing the weld joint using a wire brush, portable grinder, or chemical bath. If needed, the student will preheat the work piece using hand torch or heating furnace. To be rated as acceptable, all visible traces of contamination must be removed from the surfaces.

7. Given an experimental welding assignment, the welding technician graduate will weld the components in the flat, horizontal, vertical, and overhead positions. To be rated as acceptable the bead contour appearance, the cleanliness, and the absence of undercutting must conform with the prospective employer's standards as exemplified by radiographs, photos, or samples.

8. Given an experimental welding assignment, the welding technician graduate will, using a micrometer, a caliper, and/or related measuring instruments, obtain design specifications to ensure that mechanical tests will accurately reflect a true measure of how that specific weld metal and material behave under applied loads. The graduate will keep neat and accurate records. To be rated as acceptable the graduate must be able to read measurement instruments of the trade with a 100% degree of accuracy.

9. Given an experimental welding assignment and having determined that one of the gas shielding processes is to be used, the welding technician graduate will select proper consumable or non-consumable electrode, will make all necessary connections to the work piece, will connect and adjust gas shielding equipment and water cooling apparatus (if used), and will perform weldments in the flat, horizontal, vertical, and overhead positions. To be rated as acceptable the graduate must produce samplings that are free from undercut and/or porosity.

10. Given an experimental welding assignment, the welding technician graduate will apply knowledge of geometry, trade mathematics, metallurgy, and the physical properties of metals to write up procedure and select equipment to be used in the field. To be rated as acceptable the graduate must be able to document the basis for his/her choice.

11. Given a welded specimen to be tested, the welding technician graduate will describe the common visual, destructive, and non-destructive testing methods the component must be subjected to in order to meet finished product service requirements. To be rated as acceptable the graduate must give a brief explanation of testing methods with an 80% to 90% degree of correctness.

12. Given oral or written instructions, the welding technician graduate will make a sketch using isometric or orthographic projection techniques including detailed procedure information for the welder in the field. To be rated as acceptable the graduate must be able to do the assignment with a 100% degree of accuracy.

RELATED EDUCATION: MATHEMATICS

DEVELOPER: DR. MICKEY SETTLE
DEPARTMENT OF MATHEMATICS
PENSACOLA JUNIOR COLLEGE

PROBLEM ANALYSIS:

The problem is to implement a competence based program of relevant mathematical topics for students in the vocational/technical programs* at Pensacola Jr. College

The people, their involvement, and their assumed relationship to the above problem are as follows:

1) The leaders of the specific programs- these people feel there is a need for a change in the existing program - most agree with the proposed topics and the proposed method of presentation.
2) The mathematics department head - he is aware that a problem exists - he is somewhat aware of the proposed plan; however, I feel he is unaware of the communications problems that will develop between the proposed program and the future instructors of the program.
3) The instructors in the mathematics department - these people have a low involvement in the decision. However, they will be the key to the success of the proposed program.

The other factors relevant to implementing a competence based program for these areas are:

1) The instructional system for students lacking entry level skills.
2) The communication of competence concept to instructors,
3) The setting of competences for the specific programs and blending them into one mathematics program.

* These programs include welding; auto mechanic; electricity; drafting

The following factors contribute to implementing the competence based program. The numbers in parentheses indicate the strenghh of the factor The scale is from 1- contributes almost nothing to 5- a major factor.

a) (4) The leaders of the specific programs are dissatisfied with the present program.

b) (4) I have a desire to change the present program

c) (2) The math department head dislikes the pressure exerted by the program leaders and the students.

d) (2) The existence of a proposed program outcomes map.

e) (1) The student's needs.

The following factors oppose the implementation of the competence based program. Again, the numbers in parenthese indicate strength

a) (4) Lack of a textbook designed in a competence based approach

b) (2) Instructor ignorance about and apathy toward such programs

c) (3) The use of part-time instructors to teach these courses

d) (2) The implementation coming from me

Restraining force "lack of textbook" could be reduced by selecting the best available on the current market then screening and ordering the text's topics to meet map specifics. Additional materials could be developed to supplement the selected textbook.

Restraining force "use of part-time instructors" can not be reduced. In fact, it will probably increase. However, a short workshop with these people could improve the situation.

Restraining force "instructor ignorance and apathy" could be reduced via the workshop approach

All helping forces could be increased via meetings with the department head and program leaders. These meetings would allow presentation of the proposed program and education of all concerned to the competence based approach

The plan of action to implement the competence based program is as follows:

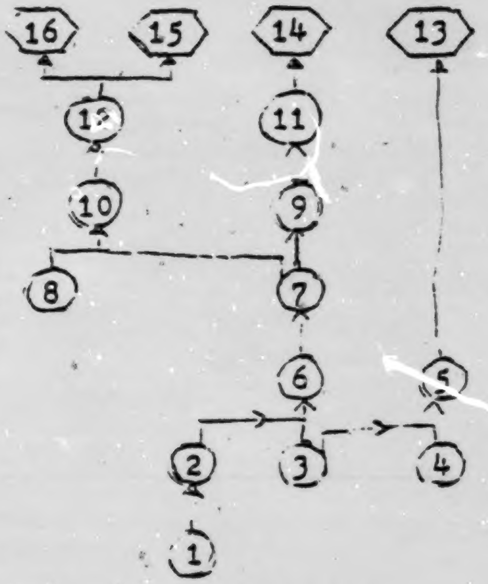
1) Meet with department head and program leaders to present the proposed mathematics program. Explain the content and design of the program. Extract possible changes and locate possible opposition.

2) Develop, along with the department head, a plan whereby all instructors in the program will attend a workshop. This workshop will explain the competence based approach and outline both scope and sequence of topics,

3) Select an appropriate textbook and develop supplemental materials that will enable the program to function.

M D Settle

EXISTING MAP 101 COURSE MAP



CODE

1. Compute expressions containing two or more operations and/or parentheses.

2. Compute expressions containing integers.

3. Solve equations of the form ax = b.

4. Translate correctly betweem per cent notation and decimal notation systems.

5. Solves basic per cent problems.

6. Solve first degree equations.

7. Solve fractional equations.

8. Reads a sine ratio table.

9. Given a formula and numeral values for all variables except one, solves the formula for the specified variable.

10. Constructs a proportion containing an unknown side of a right triangle.

11. Given a formula containing two variables, constructs a graph illustrating the relationship.

12. Given a right triangle and the measures of 1 side and a second side or angle, solves for the remaining measures.

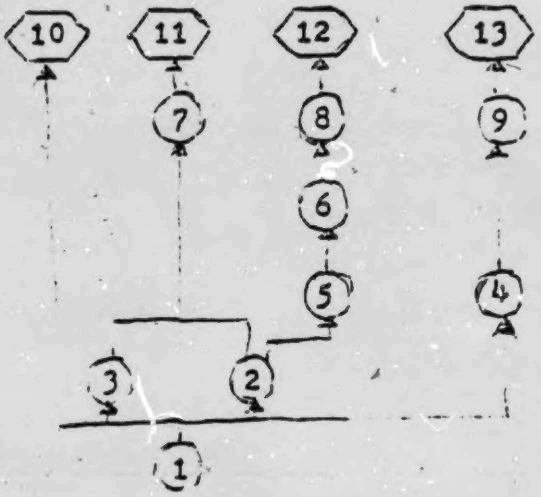
13. Solves worded problems containing the concepts of discount,profit,commission.

14. Given a graph of a formula containing two variables and the value of 1 variable, solves for value of other variable.

15. Computes area measure.

16. Computes volume measure.

PROPOSED MAP 101 COURSE MAP



CODE

1. Computes basic operations on numbers in fractional and decimal notation systems.

2. Solves equations of form ax = b and proportions.

3. Translates correctly between per cent and decimal notation systems.

4. Computes expressions containing two or more operations and/or parentheses.

5. Translates measurements.

6. Solves problems containing concepts of linear and angle measurements.

7. Solves basic per cent problems.

8. Computes area measure of selected geometric figures.

9. Given a formula and values for all variables on the right side of the equals sign, computes the value of the remianing variable.

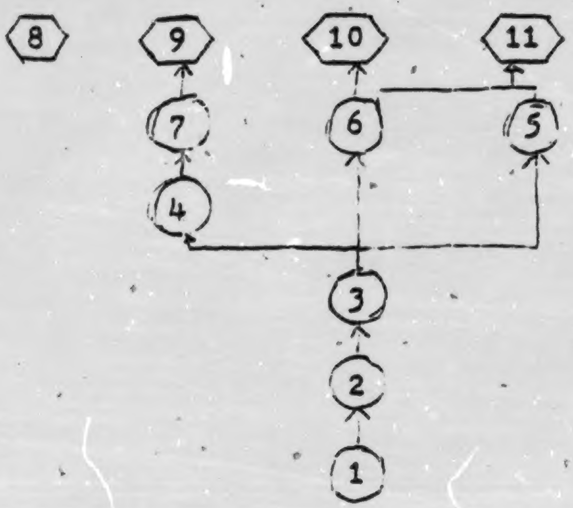
10. Solves worded problems containing the concepts of the four basic operations.

11. Solves worded problems containing the concept of per cent.

12. Computes volume measure of selected geometric solids.

13. Reads with comprehension tables and graphs.

PROPOSED MAP 102 COURSE MAP



CODE

1. Computes expressions containing two or more operations and/or parentheses.
2. Computes expressions containing integers.
3. Solves first degree equations, second degree equations, and proportions containing one variable.
4. Solves worded problems containing concepts of similar triangles, measurements, and gas laws.
5. Given a formula and a variable, rewrites formula for that variable.
6. Solves first degree equation in two variables.
7. Solves right triangle problems involving sine ratio.
8. Translates between decimal, per cent, and scientific notational systems.
9. Constructs and reads graphs of trig functions.
10. Solves problems based on concept of vectors.
11. Constructs and reads graphs of formulas containing two variables.

LEARNING OUTCOMES
for
TECHNICAL MATHEMATICS

1. Given a problem containing addition, subtraction, multiplication, and/or division with whole numbers the technical math student will do the operation(s). To be rated acceptable, the student must be correct in at least 80% of these problems.
2. Given a problem containing addition, subtraction, multiplication, and/or division with numbers in fractional or decimal notation the technical math student will do the operation(s). To be rated acceptable, the student must be correct in at least 80% of these problems.
3. Given a number in scientific notation the technical math student will write the number in decimal notation. To be rated acceptable, the student must be correct in at least 80% of these problems.
4. Given a number in radical notation the technical math student will write the number in decimal notation. To be rated acceptable, the student must be correct in at least 80% of these problems.
5. Given a number involving powers of ten prefixes (such as, mega or nano) either in words or symbols the technical math student will write the number in decimal notation. To be rated acceptable, the student must be correct in at least 80% of these problems.

6. Given a table and/or graph and a value for one variable the technical math student will the value of the other variable. To be rated acceptable, the student must be correct in at least 80% of these problems.

7. Given a geometric figure containing rectangles, triangles, circles, parallel lines, perpendicular lines, and/or intersecting lines the technical mathematica student will find missing measurements in the figure. To be rated acceptable, the student must be correct in at least 80% of these problems.

Assessment of learning outcomes:

All learning outcomes can be assessed via written tests The tests would consist of several items designed for each outcome The learner would be required to be successful in say 4 out of 5 of the items to be judged competent for that outcome. In a course setting, the grading system would be designed as follows:

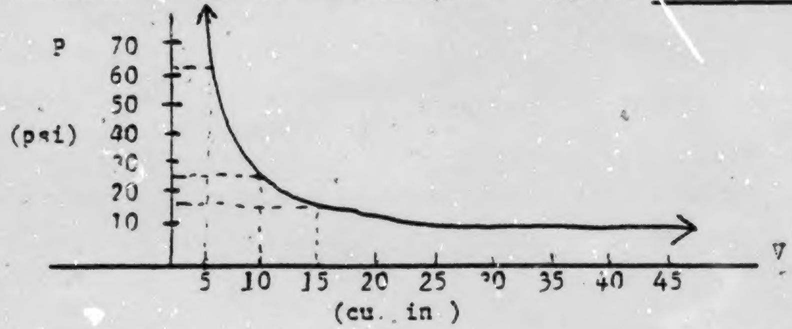
W or F -- failure to complete list of competences
D ------- completion of all the competences at the minimal level
C ------- completion of the competences plus one other outcome.
B ------- completion of the competences plus two other outcomes.
A ------- completion of the competences plus three other outcomes

The following is a list of sample items keyed to each learning outcome:

1. Compute: 72 ÷ 9 + 7(5 - 2 x 2) The number is ________
2. Compute: 2/3 + 1/5 ÷ 1/4 - 5 x 2/3 The number is ________
3. Rewrite in decimal notation: 5.23×10^{-5} Results ________
4 Rewrite in decimal notation: $\sqrt{523}$ Results ________

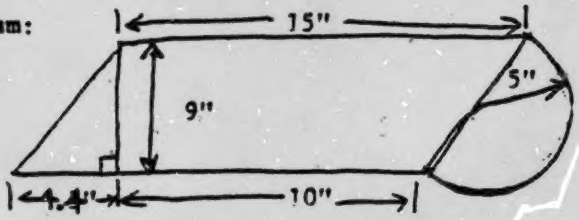
(NOTE: Use of calculator permitted, report results to hundredths)

5 Rewrite in decimal notation: 5.2 micro-milliamps Results ________
6 Read the graph:



if V has a value of 10 cu. in then P has a value of ________ psi

7. Read the diagram:



The area measure of the figure in square inches is ____________

RELATED EDUCATION: COMMUNICATION SKILLS

DEVELOPER: DR. MARGARET HEATH
DEPARTMENT OF HUMANITIES
PENSACOLA JUNIOR COLLEGE

Meg Heath

Major Learning Outcome (Employer Expectations)
Communication Skills

Employers could expect the following major competencies from students after completing the course in Communication Skills.

Obtaining Employment

When applying for employment, the student will demonstrate appropriate speaking, listening, writing, and reading skills:

1. He will be able to read with comprehension any written material involved in the job inquiry-application process.

2. He will be able to complete all required application forms, write any necessary inquiry or application letters, and prepare a resume.

3. He will be able to take part in a successful verbal job interview involving both general and technical questions.

Maintaining Employment

Once employed, the student (should) will demonstrate appropriate communication skills necessary for maintaining employment:

1. Placed in an employment situation, the student will be able to orally communicate effectively with employers or supervisors regarding job responsibilities and/or job assignments.

2. On the job, the student will demonstrate the ability to orally communicate information to a customer (client) and other employees in a coherent, logical, and suitable manner.

3. Placed in an employment situation, the student should be able to listen to and correctly follow oral instructions. In this process he should also be able to ask appropriate questions to accomplish his assigned tasks. (Or the student should demonstrate the ability to comprehend and interpret instructions after listening and subsequently translate into appropriate action.)

4. On the job, the student should demonstrate the ability to write in a logical, correct, and easily understood style any necessary work or supply orders; job related reports, or job related memos or letters.

5. Once employed, the student should be able to read any job related materials such as technical manuals, shop procedures, and business correspondence and memos with comprehension. He should then accurately be able to interpret the material orally or in writing or in action as the task requires.

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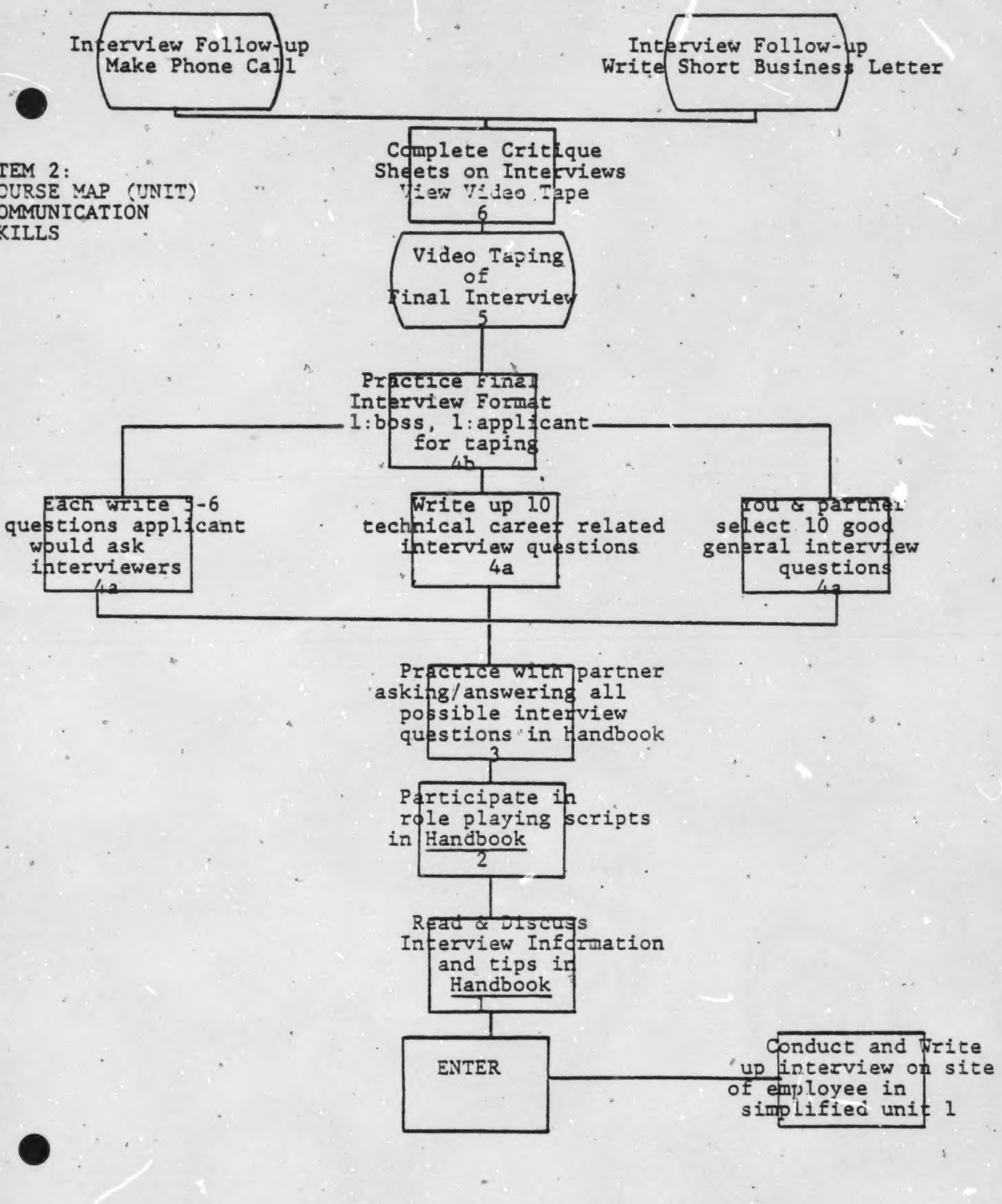
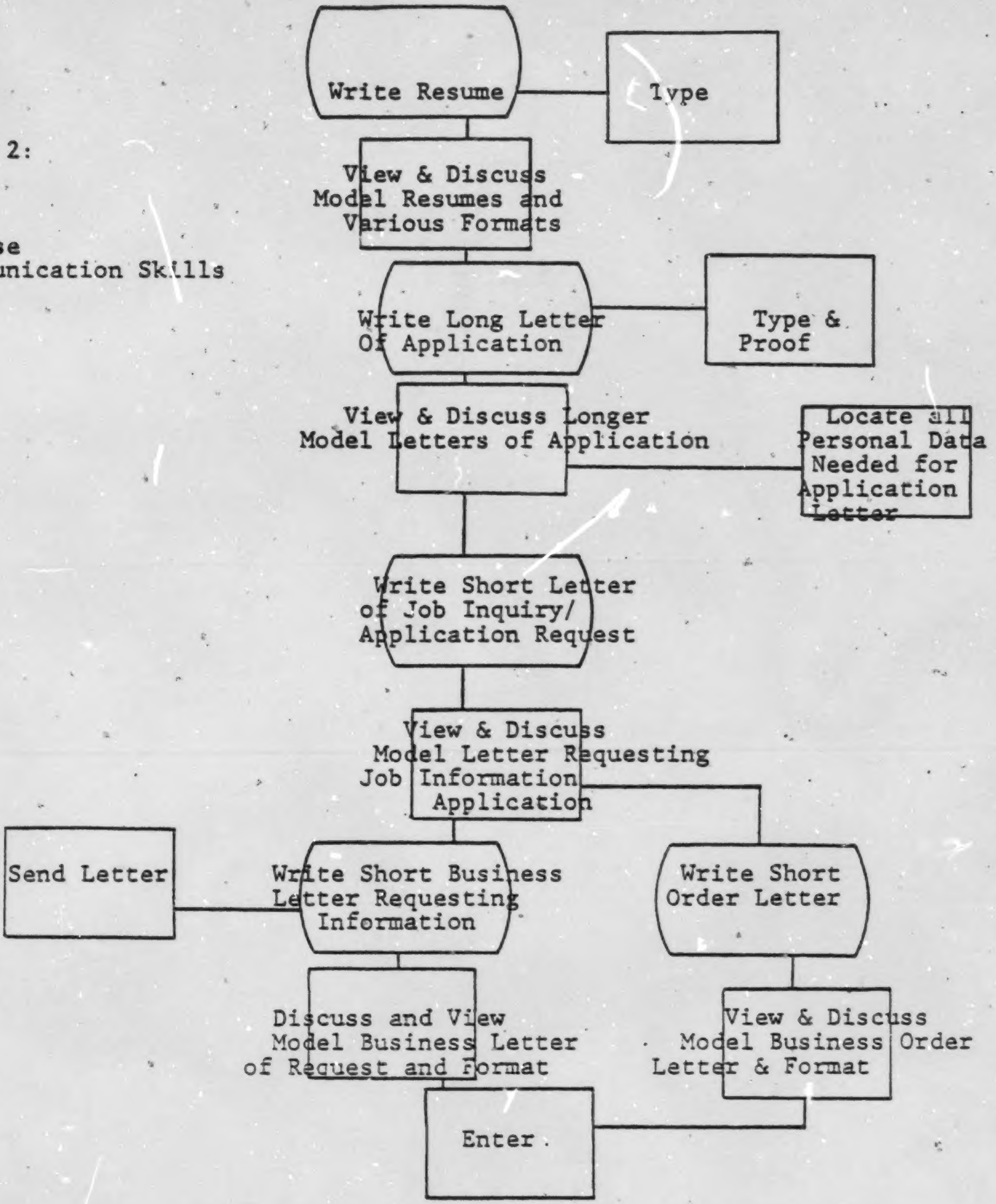
ITEM 2:
COURSE MAP (UNIT)
COMMUNICATION
SKILLS


Interview Follow-up Make Phone Call
Interview Follow-up Write Short Business Letter
Complete Critique Sheets on Interviews View Video Tape 6
Video Taping of Final Interview 5
Practice Final Interview Format 1:boss, 1:applicant for taping 4b
Each write 5-6 questions applicant would ask interviewers 4a
Write up 10 technical career related interview questions 4a
You & partner select 10 good general interview questions 4a
Practice with partner asking/answering all possible interview questions in handbook 3
Participate in role playing scripts in Handbook 2
Read & Discuss Interview Information and tips in Handbook 1
ENTER
Conduct and Write up interview on site of employee in simplified unit 1

OVERVIEW OF SEQUENCE OF ACTIVITIES
FOR UNIT 4
THE JOB INTERVIEW

ITEM 2:

MAPS
From
Course
Communication Skills


Write Resume
Type
View & Discuss Model Resumes and Various Formats
Write Long Letter Of Application
Type & Proof
View & Discuss Longer Model Letters of Application
Locate all Personal Data Needed for Application Letter
Write Short Letter of Job Inquiry/ Application Request
View & Discuss Model Letter Requesting Job Information Application
Send Letter
Write Short Business Letter Requesting Information
Write Short Order Letter
Discuss and View Model Business Letter of Request and Format
View & Discuss Model Business Order Letter & Format
Enter

SEQUENCE OF LEARNING OUTCOMES/ACTIVITIES
for
UNIT 3
Business Writing Related to Obtaining Employment
Communication Skills

PERFORMANCE ACTIVITIES

Entry-Level Performance Requirements for Technical Occupational Entry Positions - (Criteria Ref.)

COMMUNICATION SKILLS

I. OBTAINING EMPLOYMENT

	Action	Focus	Criteria
1.	Read and understand	any written job advertisement, job description, application directions, and application forms	with at least 80 per cent accuracy or demonstrated by performing successfully the necessary tasks related to the written information.
2.	Complete and write	all required application forms and an application letter	so that they conform to acceptable business/English standards/models recommended by technical or business English handbooks
3.	Prepare	a resume	which conforms to acceptable English and business standards/models recommended in technical/business English handbooks.
4.	Take part	in a successful job interview involving both general and technical questions	as demonstrated in a simulated interview which conforms to the rules of responses recommended by employers and business English handbooks.
5.	Communicate successfully	with supervisors regarding job assignments and job responsibilities	demonstrated by successful role playing situtations involving employee and supervisor.
6.	Communicate	information to a customer	demonstrated by successful role playing situations involving employee and customer

COMMUNICATION SKILLS (continued)

	Action	Focus	Criteria
7.	Able to take	an order or message corectly from a phone conversation	demonstrated by successful role playing activities requiring 100 per cent accurately recorded order or memo
8.	Write	any necessary work or supply orders	demonstrated by completing order models with 100 per cent accuracy
9.	Write	job related reports such as accident, safety, and progress	demonstrated by completing model reports with 100 per cent accuracy
10.	Write	a business letter	demonstrated by successfully composing and completing at least 3 business letters which conform to acceptable English business format as identified by business/English handbooks.
11.	Read	technical manuals and job related specs	demonstrated by successfully completing simulated or real job tasks based on these manuals or specs in a lab or class situation.
12.	Able to give	directions to fellow employees or helpers	demonstrated by successfully participating in simulated situations.

ITEM 4 SAMPLE ASSESSMENTS PROCEDURES

Learning Outcome: #1	A student will be able to prepare a resume which conforms to the model appearing in Business Communications Text.
Assessment #1:	Draft a resume. Proof, correct and type resume in an appropriate final form using the model provided in their text (in one weeks time).
Learning Outcome: #2	A student will prepare for and take part in a successful simulated job interview involving both general and technical questions conforming to the rules, interview response and suggestions in the text Business Communication and the PJC Career Lab's booklet Employability Skills.
Assessment #2:	With a partner, prepare for, practice and present a simulated job interview (with one acting as boss and one as employee). The interview should include 10 general questions and answers, and 10 technical career related questions and answers.
Learning Outcome: #3	Student will be able to take an order correctly from a phone conversation.
Assessment #3:	In a role playing situation with a partner, prepare a phone order simulation. Be sure and write down all necessary information concerning date, company name, amount, dates of delivery, your name, etc.

Item 4 : Types of Assessment in Writing

DIFFERENT TYPES OF WRITING ACTIVITIES

& SKILLS IN COMMUNICATION SKILLS

1. Most writing is integrated with or result of Reading, Speaking, Listening or Viewing.
2. Types
    1. Career - Business - for Obtaining Employment Applications; Information - Application Request Letters; Resume
    2. Business Letters - On the Job
       Request, Order, Complaint, Sales, Advertising, Letter Head and Business card design.
    3. Technical Writing
       Summary of Tech. Mag. articles, technical processes, equipment, materials, briefs.
    4. Descriptive
       Accurate, precise description of tech. machine, process, tools etc.
    5. Analysis
       Analysis of tech. processes, films, novel, speeches, TV, etc.
    6. Argumentation
       Proposal - sales - advert.
    7. Test Taking - Essay answers
    8. Use of Technical Vocab
    9. Proof Reading Techniques - Articles for Tech Scan
    10. Technical Research Paper - Sources, bibliog. , Lib. use.

Mechanics, Topic sentences, paragraph development, leading to unified essay writing.

ITEM 5 UTILIZATION OF PRODUCT

Establishment of Basic Skills Lab/Warrington Campus

Rationale:

1. The Vocational Education NEEDS of potential students, approximately 30% of Warrington Campus studetns have inadequate reading and math skills resulting in poor performance in vocational career area subjects - both in theory and alb courses. As a new campus, definite need to establish remediation in basic computation skills as well as reading/language skills to bring (1) Health Related (2) Automotive (3) CETA students up to an "appropriate" grade level which matches grade level of tech-materials, concepts, etc. used in vocational courses.

2. How, and to what extent, this program will meet these needs, and

   1. An appropriately equipped and staffed lab/center will be able to (1) diagnose specific math/reading weaknesses after initial "gross" diagnosis using CAT Level 5 (2) provide leveled remediation, on-going evaluations and final evaluation when student reaches individualized goals.

   2. Staff will monitor and report attendance, progress, evaluation, to vocational instructors; ex. Nursing and Automotive students will be required to attend til achieving a 10th grade reading/math level since their technical manuals are 10th grade or higher.

   3. All Vocational/Technical students on campus will be tested when entering and counseled concerning level and potential for success. Voc/Tech instructors will send problem students, or students can attend voluntarily - will also be integrated part of Communication Skills curriculum, a 3 hour course required for Auto students and an elective for Practical Nursing & Dental Related.

3. How the findings of any evaluations of previous programs have been used to develop this program.

   1. CAEL Evaluations and Follow-Up Project '78-'79 work definitely indicated student need.

   2. Nursing and Practical Nursing have tested students (Nelson Denny and CAT) and found math/reading deficiencies, correlate with poor performance in technical career courses. '79 - '80 Nursing will recommend 13-grade level reading as part of program.

   3. Auto Mechanics, Auto Body, Auto Paint students have been given Pre/Post Reading Tests (California V) for past four years in Dr. Heath's Communication Skills course. Remediation has been given in her course; great need for equipment/materials to enhance remedial process.

   4. CETA Auto Mechanics/Body/Paint students tested--75% reading/math skills at 6-8 grade level. Great difficulty with technical material. Have been using George Stone's IMTS Center for remediation.

4. Does this program provide training for nontraditional career patterns of males and females? Yes (XXX) No ( ).

5. If yes, describe the special features.
1. Remediation and developmental training available to: (a). displaced homemakers, female, single head of household - 80% enrollment of Health Related fields; (b). women in Automotive fields; (c). men in Nursing & Health Related fields.

6. Name and position of person immediately responsible for supervision of program:

Dr. Margaret Heath
Department Head, Humanities/Liberal Arts & Communications
Warrington Campus
Pensacola Junior College

Dr. James Blackwell
Provost, Warrington Campus
Department Head, Science
Pensacola Junior College

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RELATED EDUCATION:	OCCUPATIONAL SAFETY
DEVELOPER:	HOMER GAOUETTE DEPARTMENT OF INDUSTRIAL TECHNOLOGY PENSACOLA JUNIOR COLLEGE

RELATED EDUCATION

Occupational Safety
Learning Outcome at Completion Level
Homer Gaouette

1. The student will demonstrate the ability to recognize a respiratory emergency. Ability will further be demonstrated to react within the 4- to 6-minute envelope from apparent death (clinical death) and actual massive deteriorization of brain cells (biological death). Student will demonstrate ability to perform effective BLS (Basic Life Support) and CPR (Cardio-Pulmonary Resuscitation).

2. The student will effectively demonstrate the ability to control severe hemorrhage through understanding of the three main lines of defense. Direct pressure will be initiated first. If further assistance is required, student will apply digital pressure on the supplying artery. Finally, if all else fails, a TQT will be applied.

3. Student will demonstrate ability to react swiftly and accurately when it becomes apparent that a person has been poisoned. Steps will be initiated to dilute the poison as rapidly as possible and then vomiting will be induced except in cases of acids, alkalies and petroleum products.

4. A complete in-depth study of the O.S.H.A., 1971, will create in the student an awareness of:

   a. the law
   b. employer responsibilities
   c. employee rights
   d. understanding of the overall mission of the O.S.H.A.

Program Goals

1. Student will be confident and competent to assume a leadership role when confronted with a medical emergency.

2. To create an awareness of the O.S.H.A.

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RELATED EDUCATION: CUSTOMER RELATIONS
INDUSTRIAL RELATIONS

DEVELOPERS: DR. VIRGINIA LEES
DR. MARGARET SIELSKI
DEPARTMENT OF BEHAVIORAL SCIENCES
PENSACOLA JUNIOR COLLEGE

Customer Relations
Industrial Relations

Virginia Lees
Margaret Sielski

Customer Relations and Industrial Relations are new courses (still in the development stages) offered to vocational and technical students at Pensacola Junior College. Students in Welding; Industrial Technology; Air Conditioning, Heating and Refrigeration; Automotive Mechanics; Major Home Appliance; and Cosmetology, as well as other areas not included in this project, are required to take one of these courses. The content of these courses is very similar. Their different titles reflect the department in which they are offered and the kind of work setting (small shop, complex industry, etc.) that persons with particular vocational skills are likely to enter. The course is being designed as a series of modules. Students in all of the various vocational areas will study the modules concerned with personal adjustment and the development of interpersonal skills. Other modules to be covered will be determined by the particular program the student is in and the skills and information that will be needed in a particular job setting.

The student who completes Industrial Relations or Customer Relations and is ready for employment should be able to:

1. Demonstrate confidence in himself/herself and his/her ability to make a successful adjustment in a work role.
2. Demonstrate assertive interpersonal skills that enable him/her to get along well with co-workers, supervisors, and clients, and that allow him/her to satisfy her/his own needs and wants without violating the rights of others.

3. Identify symptoms of stress caused by rapid social change in America today; recognize signs of stress in his/her own life; and demonstrate skills he/she can use to reduce the physical and emotional effects of stress.

4. Apply basic concepts of role theory to her/his work role and other social roles that make major demands on her/his time and energy.

5. Demonstrate integrity by being in touch with his/her values and making decisions that are compatible with his/her value system.

6. Demonstrate a knowledge of the impact of government policy and programs on industry, services, and the worker.

7. Demonstrate a knowledge of the role of labor unions in American society, and be prepared to make an appropriate choice concerning union membership.

8. Describe the fringe benefits and government programs available to most American workers, including Social Security, health and lift insurance, unemployment insurance, retirement programs, pensions, and the like.

NOTE: This was our course description and course objectives as we began the CAEL project. As a result of our participation in the project, we have designed course objectives which are more specific and more measurable. Also, we have decided the courses really should be one course called Customer-Industrial Relations.

Virginia G. Lees
Margaret A. Sielski

ASSESSMENT PROCEDURES

The assessment procedures for workshop participants were geared to meet the needs of those with a responsibility for developing a whole vocational program. Therefore, we adapted this assignment to assist us in determining the interpersonal skills needed by students with jobs in cosmetology, industrial electricity, and automotive mechanics. (We are presently expanding this procedure to include all of the vocational programs whose students are required to take Customer-Industrial Relations.)

Information was gathered as follows:

1. An open-ended questionnaire was developed for use in interviews (see attached).

2. Two employers in each vocational area were interviewed by course coordinators.

3. Instructors in the various vocational areas were interviewed by the coordinators.

4. Preliminary and incomplete data were used as a basis for development of course competencies.

5. A modified questionnaire was developed for use as a student project. (See attached) Selected students in various vocational areas are in the process of interviewing employers in their particular area. This interview is to be shared with their class as a learning activity. We plan to continue student collection of data. We have found it to be a positive and valuable learning experience for students. In addition, by using this data, competencies can be added and/or modified in particular vocational areas to encourage the development of interpersonal skills looked for by employers. We see this as an on-going project that will reflect the changing needs of a changing job market. We also see it as a publishable research project.

Virginia G. Lees
Margaret A. Sielski

Open-ended questionnaire used by students interviewing employers:

I am working on a project for a course I am taking in Customer-Industrial Relations. We are interested in finding out what skills and abilities and personality traits employers look for when they hire workers. We know, of course, that you want someone who is trained to do a good job in______________________________ (cosmetology, industrial electricity, and automotive mechanics). In other words, we know you look for someone who has the technical skills and abilities that the job requires. What we are interested in is finding out what you want in an employee IN ADDITION TO good technical skills. Are there any particular personal or personality traits that you look for--or any special attitudes or behaviors that you would like for a new employee to have? Would you tell me the ones that you consider most important?

Any others?

I have one more question: Are there any personal or personality traits or attitudes or behaviors that you want to be sure that the person you employ DOES NOT HAVE? Would you name them for me?

Virginia G. Lees
Margaret A. Sielski

Open-ended questionnaire for interviewing employers:

We are developing a course in Customer-Industrial Relations. We are interested in finding out what skills and abilities and personality traits employers look for when they hire workers. We know, of course, that you want someone who is trained to do a good job in____________________(cosmetology, industrial electricity, and automotive mechanics). In other words, we know you look for someone who has the technical skills and abilities that the job requires. What we are interested in is finding out what you want in an employee IN ADDITION TO good technical skills. Are there any particular personal or personality traits that you look for--or any special attitudes or behaviors that you would like for a new employee to have? Would you tell us the ones that you consider most important?

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Any others?

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We have one more question: Are there any personal or personality traits, or attitudes or behaviors that you want to be sure that the person you employ DOES NOT HAVE? Would you name them for us ?

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CUSTOMER-INDUSTRIAL RELATIONS
Entry-Level Competencies

Virginia Lees
Margaret Sielski
Department of Behavioral Sciences
Pensacola Junior College

REQUIRED ACTION	FOCUS OBJECT	CONDITIONS	CRITERIA
Recognizes	His/her basic values and beliefs	In work settings and personal life	Self-evaluation concerning self-esteem, self-awareness, basic values
Makes	Decisions and choices consistent with values	In work setting and personal life	Self-evaluation: Am I open? Am I honest? Am I consistent? Am I confident? Do I feel good about myself? Are my decisions and choices moving me in the direction of goal fulfillment? Supervisor evaluation: Is he/she open? Is he/she honest? Is he/she consistent? Is he/she confident? Does he/she feel good about self? Are his/her decisions and choices moving him/her in the direction of goal fulfillment?
Exhibits	Positive self-concept		Confidence reflected in posutre, facial expression and other body language expresses confidence and "can do" attitude, does not engage in self "put downs."

REQUIRED ACTION	FOCUS OBJECT	CONDITIONS	CRITERIA
Receives	Information from customers/clients, co-workers, supervisors	In work settings	Uses feedback skills correctly; work assignments completed satisfactorily; customer satisfaction (did customers return?)
Listens	To customers/clients, co-workers, supervisors	In work settings where people are expressing emotion and/or discussing needs or problems	Supportive relationships with customers, co-workers
Communicates Tactfully	With customers/clients and co-workers	In work setting	Positive evaluation of supervisor; positive responses of clients/customers; avoids confrontation; absence of customer/client complaints (no angry phone calls); return business (build-up clientele)
Uses	Positive problem-solving skills	In work setting and personal life	Positive relations with co-workers, supervisors, customers/clients. Evaluated by supervisor as cooperative and "good team member."

REQUIRED ACTION	FOCUS OBJECT	CONDITIONS	CRITERIA
Acts Assertively	Interpersonal relations and in personal decisions and actions	Work setting with customers, co-workers, supervisors, and in personal life	Positive evaluation by supervisor; participates effectively in meetings; expresses opinion and feelings freely; absence of aggressive behavior; exhibits confidence in self and others. Self-evaluation: Feels in control of his/her own life.
Grows	In personal and work life		Promotion, job change, takes courses, new goals, and broadened interests, new friends
Practices honesty and truthfulness	With company, customers/clients, co-workers, money	In work setting, handling money, financial records; dealing with customers	Money and inventory accounted for; service records accurate and reliable; customer trust as reflected in repeat business; worker has respect of co-worker.
Manages	His/her time, energy, and major role responsibilities efficiently	On and off the job	Meets deadlines, completes daily work assignments on time; expresses satisfaction and lack of conflict between work roles and major personal roles; evidence of minimal amount of conflict between on-the-job and off-the-job obligations as evaluated by self and supervisor (i.e. number of personal phone calls on company time, etc.)

REQUIRED ACTION	FOCUS OBJECT	CONDITIONS	CRITERIA
Grooms	Himself/herself	For work settings during working hours	Appearance reflects accepted norms and complies with company policy.
Conforms	To company policy	In daily work, time schedule	Time cards; records; annual, personal and sick leaves; and supervisor evaluation, reflect conformity to company policy.
Recognizes	Symptoms of stress in self and others.	In work setting and personal life	Acknowledges frustration; expresses awareness of "future shock"; demonstrates empathy for co-workers
Copes	With stress		Physical condition reflects good health habits (diet, exercise); uses relaxation and techniques; enjoys recreational activities.
Relates Positively	To members of majority and minority groups without discrimination	In work setting	Supervisor evaluation; lack of client/customer complaints; majority and minority customer/client return.

REQUIRED ACTION	FOCUS OBJECT	CONDITIONS	CRITERIA
Supports and Utilizes	Federal law and policy concerning equality and affirmative action	In work setting	Behavior reflects support of federal law (does he/she support hiring of minorities; does he/she have a positive influence with peers concerning support for affirmative action, does he/she accept minority person as equal co-worker)
Possesses and Utilizes	Basic knowledge and current information concerning collective bargaining, labor unions, and other worker organizations	In work setting	Decisions about union participation in line with company policy, state laws, vocational area
Applies	Current knowledge of fringe benefits and programs available for workers (such as social security, health, and life insurance, unemployment insurance, educational program for workers)	In work setting	Is worker applying for and utilizing these benefits and programs? Is worker attending meetings that explain new programs and policies? Has worker asked the Social Security Administration for report of his/her status?

REQUIRED ACTION	FOCUS OBJECT	CONDITIONS	CRITERIA
Keeps up	With development in relevant social, political, and economic issues		Does worker subscribe to and/or read appropriate magazines, journals, papers? Does he/she take advantage of courses, workshops?

CUSTOMER-INDUSTRIAL RELATIONS
Course Competencies

Virginia Lees
Margaret Sielski
Department of Behavioral Sciences
Pensacola Junior College

REQUIRED ACTION	FOCUS OBJECTS	CONDITIONS	CRITERIA
Participates	In values clarification exercises	As individual and as member of small group in class learning activity	Present in class. Participation in activities. Makes at least 2 comments in group activity. Makes at least one contribution to wrap up session.
Makes	Decisions and choices consistent with values	In work setting and personal life	One page self-evaluation paper reveals at least two behavior changes in positive direction
Exhibits	Positive self-concept	In classroom setting	Volunteers at least once to demonstrate learned skill. Gives at least one self-validation in class activity. Scores at least four points higher on post-test of Purkey Modification of Combs-Soper Scale for Inferring Self Concept (or makes minimum score of at least 21 points out of possible 25).
Receives	Information accurately from customers/clients, co-workers or supervisors in simulated role play or in written exercises	In classroom learning activity	Demonstrates correct use of feedback skills in four out of five role play responses, or in written exercises

REQUIRED ACTION	FOCUS OBJECT	CONDITIONS	CRITERIA
Listens	To customers/clients, co-workers, supervisors in simulated learning exercises as they reveal emotions, needs, and problems	Classroom learning activities based on Thomas Gordon techniques	Active listening skills used correctly in simulation activity with one error permitted.
Communicates Tactfully	With customers/clients, and co-workers in simulated exercise	Classroom learning activity	85% of class and instructor judge communication "tactful"
Uses	Thomas Gordon's problem-solving skills	(1) In classroom exercise and (2) In personal life	(1) Class solves problem to satisfaction of all participants (2) Student reports problem-solving experience in one-page written report
Acts assertively	In interpersonal relations and in personal decisions and actions	(1) In at least 3 simulated role play exercises (2) In real life situations both in and out of class	(1) 90% of class and instructor judge behavior as assertive (using Emmons-Alberti criteria) (2) Student scores at least 7 points higher on post-test than pre-test (using Alberti-Emmons 35-point scale).
Grows	In personal, school, and/or work life		Student reports awareness of growth in at least two areas of his/her life in one-page written report.

REQUIRED ACTION	FOCUS OBJECTS	CONDITIONS	CRITERIA
Practices honesty and truthfulness	In personal and/or work life	None	(1) Student reveals opinion, belief or judgment that is opposite that of peers or authority-figure. (2) Student grades his/her own class activity sheet accurately (admitting errors) (3) Student reports honest behavior in one paragraph assignment sheet
Manages	His/her time, energy, and major role responsibilities efficiently	In class attendance, promptness, and in fulfilling course objectives. In simulated role play exercises.	Meets class attendance standards. Present in class on time (one tardy permissible). Assignments completed by announced deadline. Gives undivided attention to class activity (does not sleep, or work on assignment for another class). Demonstrates acceptance of role responsibilities in simulated exercise (85% of class and instructor agree).

REQUIRED ACTION	FOCUS OBJECT	CONDITIONS	CRITERIA
Grooms	Himself/Herself	For class activities, meeting college standards for safety and appropriateness	Appearance reflects accepted social norms and complies with school policy for particular program (i.e. cosmetology students in white uniform).
Conforms	To college policy and class requirements	In daily work, time schedule	Time cards, records, and assignments conform to course requirements.
Recognizes	Symptoms of stress in self and others	In classroom setting and personal	Acknowledges frustration and expresses awareness of "future shock" by making at least two contributions to small group activity concerned with becoming aware of "future shock" experiences. Avoids statements denying reality of "future shock" and stress. Discovers and checks his/her areas of stress on 31-point stress list. (Number checked depends on individual. Less than three checked indicates lack of understanding or denial.) Correctly identifies sources of stress by completing Life-Change Index (score depends on individual circumstances).

REQUIRED ACTION	FOCUS OBJECT	CONDITIONS	CRITERIA
Copes	With stress and change	In classroom and personal life	Participates in relaxation exercises in classroom. Completes assignment sheet (My Plan for Coping with Stress and Change), indicating specific plans for (1) regular exercise, (2) relaxation, and (3) recreation, and three specific plans he/she has put into effect to slow down change in personal life (using Alvin Toffler's suggestions). Demonstrates coping skills by healthy physical appearance and lack of serious stress symptoms.
Relates positively	To members of majority and minority groups without discrimination	In classroom setting	All students participate freely with peers in class activities. (No student left out or discriminated against in small group activity.) Makes at least one statement expressing empathy for minority group member after participating in simulated role play in role of minority worker; or after watching film on discrimination. Student contributions free of racist, ethnic, sexist statements, stereotypes, and joking.

REQUIRED ACTION	FOCUS OBJECT	CONDITIONS	CRITERIA
Demonstrates knowledge of and support for	Federal law and policy concerning equality and affirmative action	Classroom activity and course assignments	Passes written test on (1) current affirmative action policy, and (2) Equal Rights Amendment with minimum score of 85 percent. Identifies areas where inequality exists by making at least one contribution to small group project. Chooses to "hire" a minority worker after watching a videotape of qualified applicants being interviewed for a job. Absence of uninformed, prejudiced comment concerning Affirmative Action, ERA, etc.
Possesses and Utilizes	Basic knowledge and current information concerning collective bargaining, labor unions, and other worker organizations		Passes objective test on collective bargaining, current information, and "pros" and "cons" of labor unions, and worker organizations with score of at least 80 percent. Classroom discussion does not reflect local "cliche thinking" and stereotyping concerning collective bargaining.

REQUIRED ACTION	FOCUS OBJECT	CONDITIONS	CRITERIA
Applies	Current knowledge of fringe benefits and programs available for workers (such as social security, health, and life insurance, unemployment insurance, educational program for workers)	In simulated work setting, in classroom role play, or other simulation exercises. Also in objective test.	In simulated situation, role play, or written assignment the student demonstrates knowledge of programs and benefits by (1) applying for appropriate benefit, (2) identifying program or benefit for which worker is eligible. Student passes objective test with score of 80 percent or higher. Student requests social security status report.
Keeps up	With developments in relevant social, political, and economic issues		Student subscribes to news magazine or makes regular visits to library. Contributes at least one relative news item to class discussion. Reports regular watching of TV news.

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Virginia G. Lees
Margaret A. Sielski

A Plan for Utilization of the Project

We are utilizing the total workshop experience in the continued course development of Customer-Industrial Relations. The competencies are serving as the basis of the syllabus presently being revised. We are continuing to work with instructors in the various areas to be sure that the course is relevant to the needs of their students.

As a by-product of this workship, Katie Yates in Cosmetology and Virginia Lees are working together in developing a competency-based instructional package on the 1979 Florida Cosmetology Act.